

# THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

VOLUME XLIX \* MARCH 1941 \* NUMBER 3

## Educational News and Editorial Comment

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### FOLLOW-UP PROGRAMS AS REGULAR SCHOOL PROCEDURE

MOST of the earliest pronouncements on the subject of vocational guidance, which, parenthetically, antedate by many years the writings on other phases of guidance, stress the necessity for (1) assisting pupils to make a reasonably intelligent choice of a vocation, (2) providing vocational training, (3) aiding pupils in locating employment when they leave school, and (4) following up youth during the early period of their employment. Except for vocational training, these declarations remained the shibboleth of the vocational-guidance specialists until the current era of youth consciousness. Now, fortunately, educators generally understand the need for guidance programs which, on the one hand, are not limited to vocational guidance and yet, on the other hand, provide for effective introduction of phases of what was earlier thought of as vocational guidance. This enlargement of scope is most certainly needed in follow-up procedures.

Comments on this subject appear frequently in current educational publications. The most general emphasis in these articles is placed on value of follow-up procedures in the vocational-training programs of the schools. Some writers, however, express the idea that, only as the schools observe in some detail the pupil in his social, avocational, and civic life, as well as his vocational life after he leaves school, can

an intelligent reorganization of curriculums based on pupils' needs be made. It will be recalled that this fact was brought out by Spaulding in his report, *High School and Life*, for the Regents' Inquiry into the Character and Cost of Public Education in the State of New York.

The more general objectives are brought out also in the first of a series of bulletins to be issued by the new Occupational Information and Guidance Service of the United States Office of Education. Layton S. Hawkins, Harry A. Jager, and Giles M. Ruch, the authors of this bulletin, which is entitled *Occupational Information and Guidance: Organization and Administration* (Vocational Division Bulletin No. 204), give the following statement of the purposes of the follow-up program:

- a) To maintain contacts with all school-leavers (graduates and drop-outs) for a period of years for the purpose of rendering further aid and assistance.
- b) To check individual achievements for the purpose of evaluating and improving the guidance program.
- c) To furnish information as a basis for the evaluation, and possible revision or enlargement, of the educational program in the light of school-leavers' experiences.

An excellent statement of the value of follow-up in the planning of the vocational-training programs appears in a recent book, *Matching Youth and Jobs*, prepared for the American Youth Commission by Howard M. Bell:

Effectiveness of placement service, training, and guidance may be tested by a considerable variety of "follow-up" studies and services. Farsighted school administrators will conduct these studies to discover the geographical and occupational distribution of their recent withdrawals and graduates, in order more intelligently to plan curriculum changes. Principals of vocational schools will conduct similar studies to determine the extent to which their former pupils are actually employed in the kind of work for which they were trained. And placement offices will follow up the young applicants they have sent out to jobs in order to test the appropriateness of their referrals.

Follow-up should operate as a regular part of junior placement procedure by which attempts are made to evaluate how well junior applicants adjust on the jobs to which they have been referred. Such studies should seek answers to some of the following questions: How long does the youth stay on the job? Is he doing satisfactory work? Does he feel at home on the job? Does he see possibilities for promotion? If he has left, what was the reason? The answers to these questions

provide valuable and significant information, not only to placement interviewers but also to vocational counselors and educators.

The information acquired through follow-up procedures will benefit the schools in at least two distinct ways, as is pointed out by Herbert G. Espy in the *North Central Association Quarterly*:

Studies of the personal occupational experience of young people who have left school will help not merely to evaluate the effectiveness of what we try to do in school, but also to answer the much more fundamental question about whether what we are trying to do needs to be done at all and whether it is better done in school or out of school.

#### GUIDANCE NOTES

*A guidance program in which parents take part* Anyone who has had experience with guidance programs in secondary schools realizes the importance of home co-operation. The pupils' educational, social, and vocational problems can be analyzed and solutions approximated only through the most completely integrated efforts of the educators and the parents. Many current programs of guidance, however, are limited to the pupils and their school counselors. An announcement by Temple University of a forthcoming conference suggests a plan that should prove effective and one that might well be duplicated at other centers. Their announcement reads:

A "Guidance Clinic for Parents," at which mothers and fathers interested in the planning of careers for their children will be given advice and assistance by a group of experts, will be an outstanding feature of the seventh annual Career Conference for Secondary School Students, to be conducted by Temple University, in Philadelphia, on March 21 and 22, 1941.

More than fifteen hundred secondary-school students from four states will assemble at the University for the sessions, which, this year, will occupy two full days, instead of one as heretofore. It is the oldest career conference for high- and preparatory-school students in the East.

Thirty-five different and distinct "career fields" will be explored by the conference, ranging from apprenticeships in trades to professional study for medicine, law, and engineering. Featuring the conference will be a "workshop conference." Students who are especially interested in methods and procedures for determining aptitudes, skills, and interest patterns, as a part of the process of choosing a vocation and setting up educational plans, are invited to this session. Opportunity will be given to discuss specific problems with specialists in counseling and guidance.

On the program also will be vocational films for counselors. On the opening day there will be a discussion for counselors, registrars, and high-school principals, demonstrating the techniques and instruments used in the transition from school to college. The conference will be climaxed by a general session on March 22, 1941, at which an outstanding college president will be the principal speaker.

*Publications to aid local schools in guidance work* With the issue of a leaflet entitled "The Occupational Dictionary as a Tool in Vocational Guidance Work," the Occupational Information and Guidance Service of the United States Office of Education announces a new series of publications, "the purpose of which is to present in brief and clear form adapted to local use in schools and other counseling situations, sources of occupational information which have national rather than state or local origin."

As implied by the title, this leaflet describes the *Dictionary of Occupational Titles*, prepared by the United States Employment Service and published by the Government Printing Office, and offers aid in making use of the *Dictionary's* content in the guidance of pupils. This leaflet and the announcement that other similar aids will be forthcoming are most welcome to persons concerned with the problems of vocational guidance.

*Material on occupations to assist girls and women* The fact that at the present time much of the published material about occupations reflects the masculine character of the workaday world indicates a need for information about occupations in which girls and women can find employment opportunities. Another recent document from the United States Office of Education, "Selected References on Occupations for Girls and Women" (Misc. 2518), meets an especial need for bibliographical data concerning the literature now available. In the Foreword of this publication it is stated:

The annotated references included here are excerpts from the occupational section of the forthcoming bulletin which covers the period January, 1935, to June, 1940. Other sections of the bulletin will include biographical and fictional references to occupations for women; references on training opportunities and student aid for women; references on women's status in employment and education; reports of surveys of women workers; references on principles, methods, and programs of guidance relating particularly to girls and women; and information on women's organizations interested in vocational guidance.



The present material, as already indicated, fills a definite need, and the forthcoming bulletin will be especially useful to counselors who deal with occupational problems of girls and women.

#### WHAT OUGHT THE HIGH SCHOOLS TO TEACH?

THE expansion of the course offerings of the larger secondary schools in this country has taken place so rapidly that it finds the pupils hopelessly confused and many administrators mentally distressed when endeavoring to plan a program of courses that will provide the type of education which pupils desire or should be directed to receive. The schools have broadened their curriculum offerings because of pressure from a variety of sources, and they have not taken time to evaluate the contributions to the education of youth which each of the various courses can make. The American Youth Commission realized the need for a sound basis for evaluating secondary-school education and last autumn released a special committee report under the title *What the High Schools Ought To Teach*, a publication which received editorial comment in these columns in the October, 1940, issue of the *School Review*.

Although the contribution of the American Youth Commission elicited much favorable comment, it apparently was not enthusiastically received by the Executive Council of the Modern Language Association, which at its session of December 28, 1940, adopted the following statements and resolutions.

The Council noted that this document was received by the Commission with "great approval of the major conclusions and recommendations" and that it has been widely distributed and publicized. It noted that the special committee was composed of five professors of education, three superintendents of urban school systems, and two other administrators, and included no representative of the great army of teachers engaged in instructing American youth in the humanistic branches of the curriculum; and further, that, in its treatment of what it classifies as the "conventional subjects," the report sets forth an entirely inadequate and in some respects a distorted picture of the values of English and the foreign languages in preparation for life in a democratic society.

In view of these facts the Executive Council adopted the following resolutions:

"Resolved: First, that the Council protests the implication in selecting the special committee that the program of the high schools should rest solely on the theories of teachers of education and administrators and that teachers who represent curricular subjects of nonprofessional and nonvocational content have no contribution to make;

"Second, that the Council rejects the implication in statements of the report that more instruction in the so-called social studies is a better preparation for meeting the demands of a "wider social order" and the fulfilment of the obligations of American citizenship than the development of ability for clear and adequate expression in English or ability in the use of a foreign language;

"Third, that the Council regards the statement of objectives and present practice in the teaching of English and the foreign languages as inadequate and misleading, especially in the failure to recognize the constant re-adaptation in the treatment of these subjects in step with real progress in education;

"Fourth, that the Council, speaking for the more than four thousand members of the Modern Language Association and other thousands of modern-language teachers throughout the country, recognizes the necessity for constant changes in content and method in education in response to new needs and emergencies and offers its aid to the Youth Commission and all other agencies in carrying out these adaptations in such a manner as to preserve the humanistic elements in the curriculum. These it believes to be necessary to secure the spiritual freedom and happiness of the individual and to defend and perpetuate our national culture.

"Fifth, that copies of these resolutions be sent to the president and the secretary of the American Youth Commission and its sponsor, the American Council on Education, to the members of the special committee, and to periodicals devoted to the teaching of English and the foreign languages."

The pronouncements contained in *What the High Schools Ought To Teach* are of such significance at this time that all persons professionally interested in the education of youth not only should read this publication but also should, as has the Executive Council of the Modern Language Association of America, declare their reactions to it. Only as educators reason their way through the problem, can a solution be effected.

#### REFUGEE EDUCATION

SINCE refugees are coming to this country in large numbers, one of our immediate problems is to train them in ways which will best benefit themselves and the nation. Various professional and lay groups of all faiths have co-operated in this vast orientation program for training the newcomers in the American language and customs, as well as in the use of American machines and techniques.

Nell Mann, director of the employment department of the National Refugee Service, Incorporated, states in the January issue of *Occupations*:

The training aspect of refugee adjustment has been a relatively late phase of the general efforts in their behalf. The programs are, with some exceptions, in the experimental stage and must be considered and evaluated only as approaches to the problem. These projects may be divided into (1) those which provide reorientation for the individual in his own profession, (2) those which retrain the displaced individual in a field unrelated to his former occupation, and (3) those which concern themselves with individuals without any previous work history—that is, with youth.

The first group mentioned includes physicians, lawyers, and teachers. Regulations governing licensing of physicians are being met, in part, by a retraining program of the National Committee for Resettlement of Foreign Physicians in co-operation with the National Refugee Service. Physicians are urged to settle in rural areas, where general practitioners are particularly needed.

The problem of the *émigré* lawyer is more complex because of the limitation of legal knowledge to specific national laws. Law schools in several states have agreed to provide tuition for one or two lawyers for a special two-year course.

Of great aid to the reorientation of *émigré* teachers is the Friends of Refugee Teachers, in Boston, which has organized a committee to secure apprenticeships for foreign teachers, predominantly in the modern languages, Latin, mathematics, and science. Mention should also be made of the seminar held last summer at Wolfeboro, New Hampshire, by the American Friends' Service Committee, and the Co-operative College Workshops in Philadelphia being organized by the same committee as an outgrowth of last summer's experience.

The second group of refugees, those who must be retrained in a field unrelated to their former occupation, presents many difficulties. As Nell Mann states in her article previously quoted:

[The *émigré*] begins the period of retraining in a state of drastic psychological readjustment due to the fact that emigration has been forced upon him under the most disrupting circumstances. He has prepared himself for political and social change which he welcomes, but he has no real recognition of the radical economic adjustment which will be required of him. He has already spent a large part of his life in establishing himself economically, and it is difficult for him to accept the fact that this training and experience are not marketable in this country. Furthermore, the occupations in which employment subsequent to training is most probable, are on a level which is traditionally inferior for his social group.

Although many refugees come to believe that retraining will solve all their problems, in practice the sense of pressure due to age and immediate financial necessity creates reluctance to enter upon the long training period which is often necessary. This sense of pressure tempts them during training to abandon the course at the first definite job offer of any type. It is necessary for any *émigré* retraining program to take these factors into account.

The federal government has aided the third group, the young refugees, through the National Youth Administration centers in various states. In this way the newcomers become acquainted with American ideas and life suitable to their own age. To quote Mrs. Mann's paper a third time:

In general an attempt is made to teach those trades in which there is the greatest local shortage of skilled workers, and to discourage training in those occupations which are overcrowded. The type of training ranges from short five-month orientation projects to intensive two-year training courses in a specific skill. The courses may be grouped as follows: for boys—automotive mechanics, metal trades, building construction and maintenance trades, food trades and cafeteria management, and agriculture; for girls—commercial studies, restaurant management, beauty culture, home economics, and textile and needle trades.

All attempts to orient newcomers are, of necessity, in the early stages, but, with increasing co-operation and co-ordination throughout the country, improvements are rapidly being made. Only with the sympathetic aid of those who understand their problems and possess intelligent insight into the American way of life, can refugees adjust themselves physically, economically, and emotionally to their new country.

#### PUBLIC OPINION REGARDING EDUCATION

ANY issue in education in America will be decided, on a long-term basis, by those who support the schools—the taxpayers. At a time when school costs are relatively low, general interest on the part of the taxpayers in what takes place in the schools is not so evident as during times when the cost of education is in competition with national defense, social security, and other pressing matters.

At times such as these it is essential, therefore, to know the understanding which the citizens possess and the attitudes which they hold toward major problems affecting education. A poll of public opinion was recently reported in a Research Bulletin of the National Educa-

tion Association entitled *What People Think about Youth and Education*. The conclusions should prove of such great interest to all educators that they should be widely disseminated and for this reason are quoted here.

1. *The American public has a generally favorable point of view toward the present-day program of public education.* Most people reject the idea that education is overemphasized. They feel that education has improved in the past generation.

2. *The public believes that the public school should offer fair and equal opportunities to all youth.* A majority think that high schools now offer opportunity both to those planning to undertake higher education and to those who will not go to college. The public approves of equal treatment of children regardless of social position or race. It favors aid to poorer families in order that all children may have the opportunity of a high-school education, even though this means higher taxes. Half the people believe that certain states are so poor that they cannot afford to have good schools.

3. *The public favors a special program for unemployed youth who are not in school.* The National Youth Administration is favored by a majority of the people who know about it and they would like to see it continued as a regular part of the government. Even those who are not familiar with the N.Y.A. urge that unemployed youth be given work-training opportunities under governmental sponsorship.

4. *The public is for freedom in teaching and in learning.* Although divided as to whether or not teachers may favor a particular point of view, the public wants both youth groups and teachers to have freedom in discussing controversial topics.

5. *The public will not be satisfied with a static educational program.* In overwhelming numbers the public approves of physical examinations at public expense for all school children. Only one person in seven said that too much money is being spent for schools. Of those who know the facts, six persons in ten are willing to pay higher taxes so that the federal government can help the poorer states provide more adequate educational programs.

Public opinion is not static; it changes from time to time and from location to location. The report therefore directs attention to the fact that the conclusions from the study of this poll indicate areas of activities which should be engaged in by all those interested in public education.

The Committee on Youth Needs of the New York State Teachers Association, in a report entitled *An Educational Program for the Youth of New York State*, points out:

Teachers, principals, school officials, and all educational organizations should strengthen every possible means of continuing public confidence in the services of the public schools, in maintaining good will toward this basic service in our generation, and in developing the greatest possible efficiency in school services. Businessmen have long realized the value of confidence, good will, and quality in their products.

The areas of activities for educators suggested by the general conclusions found in *What People Think about Youth and Education* are as follows:

*Educational objectives.*—Many citizens are apparently unaware of the objectives receiving major emphasis in schools today. The special attention given to democratic living and the high-school opportunities in non-college-preparatory fields are recognized by relatively few laymen.

*Finance.*—The public generally is not raising objections to school expenditures. In fact a substantial number, particularly among the younger people, favor increasing the amounts of tax money allotted to educational purposes. Equal school expenditures for white and Negro children are approved. There is, however, considerable indecision based undoubtedly upon a lack of information of school and public finance.

*Federal aid.*—Half the public is aware that many states are too poor to provide good school programs. A majority of those who know the facts are willing to pay higher taxes to overcome this condition. Many of those least informed as to the need are in areas of the country most likely to benefit from federal aid.

*Youth opportunities.*—While the public is generally convinced that most young people belong in high school, there is appreciation of the need for a part-time work and training program for unemployed, non-school youth. Also, the public believes that the school program should include a realistic approach to learning by providing opportunity for the discussion of genuine problems even though they may be controversial in nature.

*Public relations.*—Whatever the reasons, a portion of the public is skeptical as to the fairness of teachers in discussion and in their treatment of children from different economic groups. Possibly this is a problem for both prior-service and in-service teacher education. More likely the public attitude arises from a lack of constructive educational interpretation and of wise public relations.

From a study of this bulletin and further similar analysis in particular local situations, educators and laymen will find ways to co-operate in developing appropriate next steps in public policy and action.

#### PRINCIPALS SURVEY THEIR OWN SCHOOLS

**B**ULLETIN Number One of Volume X of the Minnesota Association of Secondary School Principals presents a "Self-survey Form for High-School Principals." An introductory explanatory statement by the members of the committee responsible for the

form, Vernon E. Anderson, Melvin Voxland, and R. B. Heinemann, sets forth so clearly the purposes of this excellent contribution that in the interest of conciseness it is quoted in part:

This self-survey offers a form which the high-school principal can follow in checking up on his own system. The divisions of the form represent the major fields with which it is necessary for the principal to be familiar. Questions where "Yes" or "No" may be checked have been so phrased that "Yes" is the desirable answer.

In order that all fields may be covered more than superficially, the form has purposely been made comprehensive. It is intended to serve as a standard in organizing the work of the secondary-school administrator, calling his attention to the phases which he may have overlooked and suggesting lines of investigation. Size of the school will determine the usefulness of some items, but all are more or less pertinent in every high school.

In addition to the self-survey form, this bulletin gives "Norms, Data, and Bibliography To Assist in Objective Evaluation" of any school. Surveys of the traditional type, carried on by specially employed investigators, are usually costly and, in the final analysis, *direct* the administrator to problems which he should endeavor to solve. Since most improvements in a school must be effected from within the organization of the school or school system, the type of self-survey so well presented by the Minnesota Association of Secondary School Principals will, no doubt, improve education in many schools in that state and, if it can be more widely circulated, in many other communities as well.

#### INSTRUCTIONAL PROBLEMS OF NATIONAL DEFENSE

**T**EACHERS are at times handicapped in dealing with current topics because of the lack of reference material contained in textbooks. At the moment many teachers, no doubt, are experiencing a need of adequate instructional aid in regard to topics that concern national defense. To meet this need, the Florida Curriculum Laboratory of the University of Florida has issued a mimeographed brochure containing "Materials for Use in Studying Selected Topics in National Defense." The booklet gives a list of supplementary materials, consisting of inexpensive pamphlets and leaflets, which, according to the statement of the compilers, are suitable for developing classroom experiences concerned with problems of national defense.

The materials referred to are grouped under three selected topics:



(1) "Defending the Americas: Policies and Plans," (2) "Democracy in Action: Principles and Programs," and (3) "Understanding Latin American Countries and Problems." There is presented also a list of some recent inexpensive books. When reading the titles of the pamphlets and books referred to in this publication, the writer could not resist jotting down the titles of several of them which will be ordered or requested, as the case requires, because they give promise of providing exceedingly worth-while data in a lively field of interest.

#### NATIONAL TEACHER EXAMINATIONS

IN THE spring of 1939 the American Council on Education appointed a Committee on Teacher Examinations for the purpose of developing a battery of objective tests which might be used throughout the nation for the examination of candidates for teaching positions. These examinations were administered in selected centers in different states in March, 1940. Announcement has been made that the second annual examination will be held on March 14 and 15, 1941. The bulletin of the American Council which carries this announcement explains the purposes of the examination, the conditions under which candidates may participate in the examination, and the regulations governing the use of the records of the participating candidates. The staff of the Cooperative Test Service of the American Council is responsible for devising the examinations, and a new edition of each test is prepared for each annual examination.

The indications are that many superintendents are willing to use the results of these examinations experimentally, and it is to be expected that large numbers of teachers desiring new positions as well as prospective teachers will try the national examination in the hope that it will assist them in their efforts to secure the positions desired. Whether or not this examination will prove to be an acceptable method of providing the information needed by superintendents in selecting teachers can only be determined by experience. The plan may be open to question from several points of view. Already it is being questioned with respect to the kinds of tests now being devised by the staff of the Cooperative Test Service. In this connection the readers of the *School Review* will be interested in the article by John G. Pilley appearing in this issue.

ROBERT C. WOELLNER

## THIRD MIDWESTERN FORUM ON VISUAL TEACHING AIDS

THE third annual meeting of the Midwestern Forum on Visual Teaching Aids will be held at the Congress Hotel, Chicago, Illinois, on March 28 and 29. The program will consist largely of clinical demonstrations of the use of visual aids in classroom instruction. Three demonstrations have been arranged for elementary schools and three for secondary schools. Teachers with established reputations in the use of visual materials will participate in these demonstrations. A new feature of the program is a clinic for school administrators on the use of visual materials in public relations. Demonstrations of materials prepared in local school systems will be given for critical evaluation by a panel of school administrators and experts in visual education.

Producers and distributors will display visual materials and equipment and give demonstrations and explanations for all persons who are interested in the most recent developments and uses of these aids in instruction. The clinics and exhibits are presented without charge or membership fee.

## HERE AND THERE AMONG THE HIGH SCHOOLS

THE following paragraphs describe three interesting devices for stimulating pupils to participate in types of developmental activities which are not commonly engendered by traditional classroom procedures. An English teacher in a western state explains her use of the radio technique in teaching literature, a midwestern teacher of civics describes a project which increases the pupils' awareness of their civic responsibilities, and a school librarian reports a co-operative plan for guidance in recreational reading among the high-school pupils of a New England state.

*Use of radio technique in the teaching of literature* Miss Herndon Smith, teacher of English in the high school at Centralia, Washington, reports that her class in literature responds with enthusiasm to her plan of providing for classroom "broadcasting" of their re-writing of literary selections. The members of the class volunteer for the selections that they wish to dramatize, the pupils interested in a particular story taking full responsi-

bility for writing the script, working out the sound effects, directing the rehearsals, and presenting the broadcast. Usually the class is the audience, although some of the productions are presented in the school auditorium. When the audience reflects disappointment or criticism, the presentation may be revised and tried again. Sometimes more than one skit is developed for a single selection. For example, one Sophomore class divided into four groups of eight pupils, each division to provide a forty-minute broadcast of its own re-write from *Silas Marner*. These presentations developed so much enthusiasm on the part of the class that a committee was chosen to combine the several scripts and casts for a performance before all Sophomore English classes of the school. Miss Smith expresses much confidence in the radio-broadcast method of teaching literature. Her reasons for this confidence are well stated in the following excerpt from her report.

It is a creative activity offering opportunity to write, to produce, and to act. It is a group activity which develops leadership, co-operation, and organization. It is a self-expressive activity offering an opportunity for even the shy, backward pupil to speak in the shelter of the group or behind a screen without what he feels to be curious eyes upon him. It has many of the advantages of the play type of dramatization as well as additional values. Because they do not have to memorize parts or to move around a stage, the pupils can give a complete broadcast with much less rehearsal time. More stories can be given, in which pupils can take a variety of parts. It is a modern activity with a decidedly contemporary appeal. The pupils make their broadcasts live. Hence their literature is also a living creation, something intimately associated with themselves.

*Giving some recognition  
to the pupils who assume  
their civic responsibility*

John P. Dix, of the Northeast Junior High School in Kansas City, Missouri, describes the plan he has worked out with the pupils in his civics classes whereby recognition is given for evidence of civic service and good citizenship at school, in the home, or in community activities. Legislative councils representing the civics classes enacted a "law," known as the "Effective Discipline and Social Conduct Law," designed to govern participation in democratic situations in community life. Standards of acceptable conduct and citizenship are set forth in a list of require-

ments applying to specified situations. At the close of each semester certificates of civic responsibility are awarded on the basis of evidence of attainment of the stipulated standards. Self-tests and references are provided to guide the pupils in their efforts to meet the requirements for a certificate.

Evidence of the attainment of the standards comes from different sources. The pupils in each civics class choose by ballot the eight outstanding "citizens" of the class. Other ratings are derived from the "Civic Participation and Service Diaries" kept by the pupils, reports from parents and community leaders, and from "statements of approval" by the teacher and the officers of the class.

In recognition of the forms of civic responsibility which this program is designed to encourage, the certificate indicates that the award is made for citizenship, self-improvement, leadership, or civic achievement. Mr. Dix reports that the project is stimulating interest in the study and discussion of civic problems, as well as increased participation in school and community activities.

*Librarians listen to book reviews written by pupils* The Massachusetts Group of the New England Library Association has arranged a series of meetings at which pupils of a selected high school present their reviews of current publications before an audience of librarians, teachers, and pupils from representative high schools of the state. Miss Ruth M. La Pointe is chairman of the group this year, and the meetings are held at the Book Shop, 270 Boylston Street, Boston. At the January meeting the reviews were presented by pupils of the Braintree High School. The Girls' High School of Boston is responsible for the program in March, and the reviews for the April meeting have been assigned to pupils in the Marblehead High School. At each program a noted guest speaker is also presented, usually someone of interest to young people. The library association and the Book Shop initiated these programs co-operatively about two years ago. Miss La Pointe reports much interest in these meetings on the part of teachers and pupils throughout the state.

## WHO'S WHO FOR MARCH

*Writer of the news notes and authors of articles in the current number* ROBERT C. WOELLNER, associate professor of education and executive secretary of the Board of Vocational Guidance and Placement at the University of Chicago.

JOHN G. PILLEY, chairman of the Department of Education at Wellesley College. CHARLES I. GLICKSBERG, teacher of English at South Side High School, Newark, New Jersey. DOUGLAS E. SCATES, associate professor of education at Duke University. DALE K. SPENCER, principal of Bradley Creek Elementary School, Wilmington, North Carolina. MINERVA F. DESING, formerly adviser in research, Pennsylvania State Department of Public Instruction. HOMER J. SMITH, professor of industrial education at the University of Minnesota. T. E. SEXAUER, associate professor of vocational education at Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa. RUTH TOWNSEND LEHMAN, associate professor of home-economics education at Ohio State University. FREDERICK J. WEERSING, professor of education at the University of Southern California. ANNE E. PIERCE, associate professor of music and head of the Department of Music in the Experimental Schools at the University of Iowa. W. G. WHITFORD, associate professor of art education at the University of Chicago. D. K. BRACE, professor of physical education at the University of Texas.

*The writers of reviews in the current number* STEPHEN M. COREY, professor of educational psychology and superintendent of the Laboratory Schools at the University of Chicago. LUCETTA SISK, assistant superintendent in charge of instruction, Baltimore County Schools, Baltimore, Maryland. LEE J. CRONBACH, instructor in psychology in the School of Education at Washington State College, Pullman, Washington. J. W. WELSH, principal of Abraham Lincoln Junior High School, Rockford, Illinois. BUTLER LAUGHLIN, principal of Lindblom High School, Chicago, Illinois.

## THE NATIONAL TEACHER EXAMINATION SERVICE

JOHN G. PILLEY

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THERE are good reasons for believing that the recently instituted National Teacher Examinations<sup>1</sup> will have a very great influence on the education of the country. The committee responsible for the examinations has the sponsorship of the American Council on Education, the resources of a substantial grant from the Carnegie Corporation, the services of distinguished test technicians, and the co-operation of numerous teachers and administrators. Many school authorities, impressed by the promise of better means of selecting teachers, have announced their support of the examinations, and already candidates for the profession are presenting themselves in large numbers for examination. Soon teachers' colleges will begin modifying their teaching so as to prepare students for the examination. Before long the whole educational system will be influenced. It is clearly of the utmost importance that a project which is likely to have such far-reaching consequences should be closely examined.

Since its first announcement, now well over a year ago, there has been a certain amount of discussion of the project, some favorable<sup>2</sup> and some not.<sup>3</sup> Very little of this discussion has, however, included

<sup>1</sup> a) *An Announcement of a Teacher Examination Service*. New York: National Committee on Teacher Examinations of the American Council on Education, November, 1939.

b) Ben D. Wood, "Making Use of the Objective Examination as a Phase of Teacher Selection," *Harvard Educational Review*, X (May, 1940), 277-82.

c) David G. Ryans, "The Professional Examination of Teaching Candidates: A Report of the First Annual Administration of the National Teacher Examinations," *School and Society*, LII (October 5, 1940), 273-84.

<sup>2</sup> a) William L. Connor, "Praise for the Cooperative Test Service," *Progressive Education*, XVII (March, 1940), 155-56.

b) Carroll R. Reed, "The Role of Examinations in Teacher Selection," *Educational Record*, Supplement No. 14 (January, 1941), pp. 44-53.

<sup>3</sup> a) Evan R. Collins, "Teacher Selection by Examination," *Harvard Educational Review*, X (January, 1940), 3-6.

b) Albert Lindsay Rowland, "The Proposed Teacher-Examination Service," *Harvard Educational Review*, X (May, 1940), 283-88.

any close scrutiny of the principles which were followed in bringing the examination to its present form, of the assumptions implicit in the recommendations for the use of its results in the selection of teachers, of the kinds of questions asked in the examination, or of its probable influence on the preparation of teachers. It is the purpose of this article to make a scrutiny of this kind.

It will perhaps be well if we start by saying a little about the examination itself and about the claims that are made for it. The whole examination as it will be set to candidates in March is not, of course, available for review. There is available, however, a *Practice Booklet for Examinees*, which is made up of test items that are described as representative of the examination as a whole. This booklet consists of three main parts. The first includes nonverbal intelligence tests, an English comprehension test, and an English expression test. The second consists of a single section headed "General Culture." The third is headed "Professional Information" and has numerous subsections under such titles as "Education and Social Policy," "Guidance, and Individual and Group Analysis," followed by an "Optional Examination" with subheadings, "Education in the Elementary School" and special subject headings. All the questions are of the objective, multiple-alternative, "best" answer type, and their authors claim that they test not only a candidate's knowledge but also his ability to use that knowledge. The authors are emphatic that the examinations must not be regarded as providing the sole, or even the main, criterion for the selection of teachers. They point out that the examination provides no estimate of qualities of character and personality, and they insist that the results must only be used as a means of supplementing independent judgments of these qualities and of the candidate's performance in the classroom.

Though it is not the purpose of this article to discuss what is likely to follow from the misapplication of the results of the examination, it is important to realize that this instruction may not always be observed and that the judgment of quality may often be subordinated to the quantitative results of the examination. That there is a real danger of this happening is shown by the way in which even a member of the staff responsible for the examination can himself talk as though the judgment of a teacher's personal quality were



only supplementary. Thus we read, "The National Committee plans . . . to urge superintendents and boards of education to supplement the examinations so as to include as many of the important characteristics of good teachers as possible in the selection plan."<sup>1</sup>

Since the examination is offered as a contribution to the better selection of teachers, we might have hoped that its authors would start by asking first, "What do we mean by good teaching? By what signs do we recognize a good teacher?" and then, "Can we devise an objective-type test whose results will correlate with the forms of behavior through which we recognize a good teacher in the classroom, and will, therefore, provide an indication of whether any particular candidate is a good teacher or not?"

The procedure of those responsible for the examination was, however, the reverse of this. Instead of starting with these questions, they started by asking the single question, "What test items of the kind suggested by school superintendents can we devise which will yield answers that are statistically reliable?" They then proceeded to make a collection of such items, though without any attempt to discover whether a person who made a high score in answering them was also a person that they (or others) recognized as a good teacher. It is very difficult to be sure what relation they supposed to exist between the results of the examination and the qualities that they recognized in practice as good teaching, for in all the papers in which they have discussed the question, they become extremely vague at this point. The associate director of the Cooperative Test Service, in a discussion<sup>2</sup> of the procedure by which objective-test items should be arrived at, tells us that the primary considerations which should guide the formulation and inclusion of any test item are "item validity" and "item difficulty," both of which are defined by criteria of statistical methodology. Another consideration, described as of secondary importance, is referred to as "face-validity." This term is

<sup>1</sup> John C. Flanagan, "An Analysis of the Results from the First Annual Edition of the National Teacher Examinations," *Journal of Experimental Education*, IX (March, 1941), 10.

<sup>2</sup> John C. Flanagan, "General Considerations in the Selection of Test Items and a Short Method of Estimating the Product-Moment Coefficient from Data at the Tails of the Distribution," *Journal of Educational Psychology*, XXX (December, 1939), 674-80.

defined as the degree to which the "examinations appear to measure what is popularly understood by the title." We are not told how much the "secondary considerations" weigh in the decision as to whether to include a particular item or not. Nor are we told in what sense the ominous word "appear" is to be understood.

But whatever the authors' opinion concerning the relation between the results of the examination (and we can leave aside the question of what the "thing" the tests measure is to be called) and what they would, in practice, recognize as good teaching, they do not seem to have made any attempt to discover experimentally what the relation is. Thus, though the examination may satisfy the criteria of statistical methodology, its authors have no grounds other than their intuition for claiming that the results of the examination provide any evidence of ability to teach. They are thus in the position of a man who was so devoted to the criteria of chemical purity that, when he was overcome by an illness, he took no interest in whether any particular medicine would cure him but only in whether it was a chemically pure substance!

The main objection to the procedure adopted by those responsible for the examination is not that they started from the question, "What is statistically measurable?" but that they went forward with an examination which will have an important influence on American education and on the lives of a large number of young people, without first obtaining evidence to show that the "thing" they found they could measure had any relation to good teaching.

It may well be that the authors of the tests would counter this criticism of procedure by saying that the tests make no claim to measure teaching ability but claim only to measure a part of (or an *aspect of*, or a *phase of*, or an *element in*—all the descriptive metaphors are used) teaching ability. But even in this case it remains for them to prove experimentally what kind of part of teaching ability is measured and how it is related to the whole of teaching ability as observable in the classroom. Yet without any attempt to obtain evidence on this point, they recommend that the examination score should be combined with the marks awarded on an independent judgment of personal quality and of teaching performance by simple arithmetic!

Though there are only intuitive grounds for asserting any relationship between the results of the examination and teaching ability, no one would disagree that the examination is primarily a test of factual knowledge (the unsupported claim that it is a test of ability to use knowledge is extremely dubious). True, a man can't teach another what he doesn't know, but to say that his knowledge is a part of his "teaching ability" is to court confusion by using the term in a sense quite different from that in which it is usually understood. For most people the ability to teach is the ability to help others to learn, in the sense which Henry Adams had in mind when he said in his autobiography, "What one knows is, in youth, of little moment; they know enough who know how to learn."<sup>1</sup> The sense in which the authors of the tests understand teaching ability is very different from this and comes close to that of the student who had forgotten that the Lord was her shepherd and that she would not want. Her comment on a remark of T. H. Huxley's<sup>2</sup> to the effect that "it is much better to want a teacher than to want the desire to learn," was that it was a fine tribute to the importance of the teacher's work.

These criticisms should not be interpreted as a failure to recognize the importance of teachers' being well informed. There are, however, many ways of being well informed, and persons who have become well informed in the sense that being well informed is likely to result from preparation for such examinations as those under review, are not likely to be the best educated. There was a time, of course, when people conceived of an educated person as one whose studies had resulted in the development of a fuller understanding of himself and of his fellow-creatures which enabled him to know and to love them better in the ways that are essential to good teaching. It is true that an "education" in such a subject as engineering (or in English, for that matter, if it is regarded as a kind of engineering) cannot, of itself, be expected to contribute much to such development. But it may well be asked whether a man whose studies in art and literature have not resulted in such a development has ever entered into the spirit of art and literature in the ways that are nec-

<sup>1</sup> Henry Adams, *The Education of Henry Adams*, p. 314. Boston: Houghton Mifflin Co., 1918.

<sup>2</sup> In his essay "A Liberal Education: And Where To Find It."

essary for understanding. Today the current conception of the educated man is not based on what men are capable of becoming through their free response to one another and to all that the past offers them; a man is judged educated when he has been made what the schools and colleges of today do make of people. Thus he can claim to be educated and to have culture even when, as a person, he remains almost untouched by his knowledge. In advocating tests for the selection of teachers which call chiefly for more of the kind of book learning of which there is already far too much, the authors of the National Teacher Examinations are tacitly taking the attitude, with regard to present education, that that which is, is right—but that there should be more of it. The influence of the examinations will inevitably be in this direction and will, if it continues, reverse the present trend toward a more reflective, more personal, and, we might add, more democratic kind of education.

Much as the procedures followed in developing the present examination are to be criticized, we must accept the result as important, in that young men and women are already presenting themselves for it in large numbers and will be judged according to its results. Though the test items making up the examination have been chosen primarily for their statistical reliability (the importance of which we do not fail to recognize) and not because they have been shown to have any relation to teaching ability, it is important that educators should make their own judgment of them.

Space does not allow for criticism of more than a small part of the examination as represented by the *Practice Booklet*. We had therefore best restrict our attention to the section headed "Professional Information." In this section there are very few questions which are intended to present problems of interpretation, though, to anyone who has thought at all carefully on education, many of the questions present quite baffling problems of interpretation. As the heading of the section suggests, the questions are all cast in factual form, though a large number of them are inquiring what is the best policy to follow under specified conditions. The reduction of questions that really are questions of value to questions of fact is done by assuming that there is an authoritatively right answer to all such questions. For example, the candidate is asked which is the "best" of the five ways suggested to "encourage retention of new material," to behave

toward a boy "who is shy and withdrawn," to use educational measurements, "to use the oral recitation to promote the use of good English," etc., etc. The answer to all these questions would depend on particular circumstances, the personality and aims of the particular teacher included. Of many of the questions it would be true to say that the more a candidate had reflected on actual classroom situations, the more reluctant would he be to commit himself to any of the choices suggested in the question. The student who would have least hesitation in giving the "best" answer would be the student whose reflection on classroom situations had not gone far enough to bring a recognition of the limitations and dangers of the "best" answer he had recorded in his notebook in college. Such questions are unfortunate in that they suggest that there is a right and a wrong answer which is to be learned from the proper authority when, in fact, the value of a teacher's work depends, in a very important way, on the extent of *his own* powers of discrimination and his capacity of acting confidently and responsibly through *his own* sense of what is right and wrong. Just as the authors planning the test allow statistical criteria to decide what items should be included, thereby avoiding the responsibility of proclaiming their own values in education, so they tend to express questions of policy, in which the teacher should show his quality by the way he uses his judgment, as though they were questions of fact. The phrasing of some of the questions makes it seem not only that no question of value is involved but that the question is not one in which the teacher has any practical responsibility at all. The question, "From the point of view of the classroom teacher, the most important function of educational measurement should be"—followed by five alternatives—provides a good example. What the question is really asking is, "In which of the following five ways are you, as a classroom teacher, likely to want to make use of educational measurements?" It isn't easy to see how anything is gained by putting the question in a form in which the teacher is asked to regard himself as a spectator of educational measurements performing their functions in ways which he cannot influence but which he is asked to criticize.

A still more important criticism of the section is that the language of many of the questions, as well as that of the answers from which the "best" has to be selected, is made up of words and phrases

which, though often recognizable as examples of the verbal currency for which the teachers' colleges have in the past been so much criticized, have little or no meaning. Any candidate attempting to answer the question is forced into seeming to accept clichés which, in his own educational thinking, he may have left far behind or may never have fallen victim to. What makes it all the more annoying for the candidate is that he has no means of showing that he has achieved a greater degree of clarity than is shown by the question.

The kind of perplexity the examination questions are likely to create in the minds of students who have reflected at all deeply on concrete educational situations, is illustrated by the following statement made by a graduate student on a question which reads:

3. A teacher may most effectively encourage retention of new material by—
  1. having it read rapidly several times.
  2. giving various illustrations of its meaning.
  3. having it read aloud slowly.
  4. having several pupils present it to the class.
  5. writing it on the blackboard while explaining it.

She writes:

Before I can check one answer, I find myself asking several questions: What is meant by "retention of new material"? Does it mean that a pupil has "retained" material when he can repeat the words as read, or when he can ask questions which show he has understood the words as used, or when he can tell what was said in different words? Does retain have any time requirement, i.e., does retention mean knowledge a week later, or a month later, or only ten minutes later? What is meant by material? Does one retain an object when he remembers how it looks? Is a poem retained when it can be written down as a picture might be drawn of apparatus, i.e., as it looked on the blackboard? Are ideas material? Are arguments or attitudes toward ideas, material? Is the teacher supposed to judge "effective encouragement" of the process by tests? In other words, I am in doubt about the meaning of almost every word in the unfinished sentence which I am supposed to finish. But let's suppose it means: *A teacher of any subject will find, upon testing for comprehension from memory a few days after a certain lesson, that the pupils show more evidence of understanding the meaning of a printed passage when that passage was first presented to them by—*

All right—now I am still stuck. You see it depends. Of one thing I am sure. The pupils who "present it to the class" will probably learn something. For them "retention of material" may actually have meaning (if any). They may even remember what they said as well as how embarrassed they felt when they said it, or even how much they enjoyed the chance to give a play—or whatever.

My guess is that I am supposed to check # 3-2 because "giving illustrations" of meaning is very much in vogue right now and is in line with recent studies in interpretation in teaching, etc.

But I submit that anyone who thinks there is an absolutely *best* answer to that question is thinking dangerously. Some student might even think he could learn the rules for "effective retention teaching" out of a book.

It would seem reasonable to suppose that a candidate in whose mind the examination questions raised such perplexities as these would be likely to be a more effective teacher than would a candidate who had learned the "right" answers to such questions—yet the examination would not seem likely to discriminate between them.

It is conceivable that an objective examination could be drawn up which, while satisfying the criteria of statistical reliability, would also distinguish between the student who had learned to think about education concretely, with images of real children in mind, and the student for whom such expressions as "retention of new material" made up educational reality. Such an examination would, however, have to be made up of questions of a very different kind from those which make up the present examination.

It may be argued that many of the criticisms made of the examinations are of a perfectionist kind and leave aside the question as to whether the examination, as it now stands, will not, in fact, lead to a better selection of teachers than that at present being made. But as soon as we ask this, the old question, "What is a good teacher?" confronts us again like the Button-Molder in *Peer Gynt*. If we take the nearest thing to a reply offered by those responsible for the examination, which is that good teaching is the kind of teaching carried out in the schools of education whose students gain a high score in the examination,<sup>1</sup> then the answer to the question becomes a probable "Yes," since students entering the teaching profession tend to teach, at first at any rate, in the way they themselves have been taught. According to other conceptions of good teaching, the answer might be an emphatic "No."

If, instead of considering only the immediate influence the National Teacher Examinations are likely to have on the selection of teachers, we ask what the influence of the examinations over a num-

<sup>1</sup> John C. Flanagan, "An Analysis of the Results from the First Annual Edition of the National Teacher Examinations," *Journal of Experimental Education*, IX (March, 1941), 1-14.



ber of years is likely to be, we find even more serious grounds for concern. As soon as the Teacher Examinations are established, the schools of education will begin doing all they can to prepare students for the examination. The authors of the examination have themselves recognized this probable outcome and have taken it into account in giving the examination its present form, though not with any view to making the examination encourage deeper and more concrete reflection on education: their interest was in range, not in depth of study. The examination being what it is, its influence on the preparation of teachers must inevitably be to encourage authoritative teaching which will dictate the "right" policy to be adopted in every kind of situation and the "right" answer to questions of taste and value. It will be to drive students into accepting authoritative rulings on questions that they can only genuinely answer after thinking their way into the situations in which they arise. It will also tend to institutionalize the clichés that have had such an unfortunate influence in education in the past. Thus it will tend to reverse the very healthy development, recently taking place in education, which has encouraged students of education to discover themselves through learning to think, to feel, and to accept responsibility with others and for themselves.

Most educators would hope that those who are likely to have the greatest influence on education should also be those who have the deepest understanding of education, not only as it is, but as it might become. There is no doubt that the National Teacher Examinations, having, as they do, the backing of the American Council on Education, are likely to have a very great influence in education. Let us hope that in further revisions the authors of the tests will recognize that to subordinate human judgment of what is of value to the demands of statistical methodology is a sign of failure to recognize what is of first importance in all education. The search for education is, at once, the search for value and for the capacity to appreciate value, in man and in nature. Tests may, at times, help in the recognition of value in others but only as spectacles might help us to see a thing of beauty. To suppose that statistical criteria can tell us what is of value is like supposing that, if we only had good spectacles, they might do our seeing for us.

## CULTURE AND VOCATIONAL EDUCATION

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### GENERAL CONSIDERATIONS

THE quality of education at any period is conditioned by a complex of social and economic factors. This truism needs stressing at a time like the present, when discordant and wildly impractical programs are being proposed. Nobody desires to establish national uniformity in educational administration. Each state, each community, should be permitted to determine, within reason, the educational needs of the young in its territory. What must be emphasized, however, is that the psychology of education cannot be studied apart from the socio-economic conditions prevailing at any given time.

How does the time factor operate in deciding the kind of education that the public is willing to support? For purposes of analysis, three types of mentality may be distinguished: the pre-depression, or jazz-age, mentality; the demoralized mentality of the depression, lost in a world of mass unemployment, economic breakdown, bread lines, relief, and work projects; and finally, the "jittery," post-depression mentality.

The pre-depression mentality was expansive, optimistic, exuberant, bursting with robust faith in the limitless possibilities of achieving prosperity in this fabulously rich country. The accent was placed on the material wealth of the nation, our enormous technological resources, our incalculable capacity for progress.

Then came the profound moral and nervous trauma induced by the most severe and the most widespread financial depression that the United States has yet had to face. The gods of our pantheon tumbled down ingloriously. Our faith in continuous progress and the manifest destiny of America was sadly shaken, if not shattered. The depression mentality established itself in many parts of the

country. It was, like erosion, a gradual but appalling process, slow but relentless and overpowering.

The depression drove home the necessity for retrenchment. Men would have to learn how to forgo luxuries. What is more, they would have to adjust themselves to joblessness, the humiliation of relief, the demoralizing experience of not being wanted, and the threat of insecurity. During these years when millions were poorly fed, poorly clothed, poorly housed, and were forced to dwell in irksome idleness, the sobering perception emerged that many would never be able to rise above their present economic status.

This outlook naturally influenced the course of education. Funds, formerly provided generously, were cut down with exacting stringency. The story is a long one and need not be retold, but the attitudes that it engendered in the young are revealing. Sensitive to the values about them, the young people, products of their social environment, still looked forward with eagerness, but with no assurance, to the adventure of maturity; for they doubted their ability to find themselves, socially and economically, in this dislocated world. It was dinned into their ears on all sides that there were no jobs to be had. Nor did it take much to convince them. All about them they saw the ravaging effects of the financial crisis: families on relief, the desperate and often despairing brooding of parents, the discouraging reports of those who had left school ahead of them.

Then came the post-depression mentality, the backwash of the tide. The young were now fully awake, militantly realistic. The attitude was not cynicism. Fundamentally, youth is not cynical; it is filled with faith and vision, hope and ideals; it pictures the world in the image of the heart's desire. But it had become skeptical, distrustful of classroom ideals and of the teachers' promises and preachments. It saw the unresolved contradiction between the security of the school and the insecurity that raged outside: the cutthroat competition, the relative unimportance of spiritual aspirations, the crass disregard of human values. What happened as a result was psychologically interesting. The aspiration level of the ego was accommodatingly lowered in response to a drastically changed social environment. Gradually the young learned to adjust their desires and their demands to the reality principle. What they were missing and what

they would be deprived of loomed up as supremely important—so important that everything else was subordinated to it. A job—that was crown and consummation, aim and end, alpha and omega, fruit and fulfilment. While this post-depression attitude of the adolescent in the secondary school may be profitably viewed from a number of angles, it concerns us here chiefly from the perspective of education.

#### THE JOB AND THE CURRICULUM

Adolescents are more critical of the educational offering of the schools than teachers and administrators commonly suspect. When the educational consequences are not immediately painful; when, that is to say, education has no unfortunate aftermath; when the young are able to find themselves, after a fashion, in the economic life of the community, the complaint does not reach major proportions. There are, to be sure, many maladjustments even under normal conditions—maladjustments which express themselves in the form of indifference, open resistance, truancy, disciplinary problems, and scholastic failure. The curriculum, despite its diversified content and specialized function, is on the whole too uniform in nature to satisfy the needs of all pupils. When they awoke to the bleak future that seemed to face them, when they were sufficiently impressed with the unhappy consequences, for them, of the straitened economic society into which they would soon be plunged, they became impatient, restless, hard to please. They began to think for themselves, to compare values, to gauge the importance of school work in the light of their individual problems, namely, their vocational needs and goals.

Illuminating, indeed, was the question that they posed: "To what extent does this lesson help to prepare me for a job?" The arguments that a man is vastly more than a job-holder, that personality growth, and civic competence, and intellectual and social understanding, and ability to make worthy use of leisure time are also desirable objectives—such arguments aroused their irate skepticism. When free to voice their opinion, they did not hesitate to assert that leisure was something evil, inherently unpleasant; in their minds it was associated with compulsory idleness, the curse of unemployment. What gave a man status and security was a job, and ability to obtain a

job, they insisted, was the basic aim of education. Everything else was academic and futile.

The implications that this situation has for education are profound and far reaching. Since education is responsive to community norms, as is vividly brought out in the sociological study *Middletown in Transition*,<sup>1</sup> any type of education furnished will be a function of the community interests and emphases as embodied and interiorized in the dominant economic group. The educational authorities, whatever philosophy of education they may hold, will have to take cognizance of the pressure exerted by such a group.

The pupils heartily support the growing demand for vocational training. Unfortunately they take a short-range view of the function of education. They fail to realize, so strong is their occupational obsession, that the education which they receive must last them for a lifetime; that the attitudes, values, ideals, and methods of solving problems which they learn in school will tend to persist. They also fail to realize that, by acquiescing in a limited and exclusively practical vocational program, they are defrauding themselves of the rich and varied opportunities for development which a democratic system of education is supposed to provide. If not by means of equalizing educational opportunities, how will the class structure of American society remain fluid and permit the most able, the most energetic, the most gifted to rise to their "natural" level?

When the emphasis is placed on preparation for a particular trade, the young are unable to discover their "true" vocation. They see but the immediate job. Their vision is restricted. They reject the cultural heritage of the race for the pittance that a job as a clerk or machine-tender will bring them, and they are delighted at the good fortune that gives them status as wage-earners. It is not eagerness for work but the blindness to their heritage which is saddening to contemplate. They deny themselves the golden chance of studying the nature of man, the organization of society and their place in it, forgetting in their ambitious haste that it is they who in part will determine the direction in which society will move. They give up all those opportunities for the sake of becoming wage-earners. Is there any need for their making such a bad bargain?

<sup>1</sup> Robert S. Lynd and Helen M. Lynd, *Middletown in Transition*. New York: Harcourt, Brace & Co., 1937.

Such considerations have a vital bearing on the traditional secondary-school curriculum; for if this state of mind gains wider currency and strength, it will eventually succeed in ousting the intangible cultural objectives of education. The revolt of the job-hungry barbarians is already under way. There are those (and their number is legion) who would restrict the high-school course of study to the basic fundamentals—reading, writing, and arithmetic. They would eliminate as costly boondoggling all the newfangled pedagogic innovations—art, music, literary appreciation, creative writing. These serve no practical purpose; they butter no parsnips; they carry no weight with employment agencies; they do not impress potential employers, who are more interested in what a person can do than in what he presumably knows.

The pupils are almost overwhelmingly on the side of the dark angels. They heed the imperative of the employer and turn a deaf ear to the pleas of their educational counselors who uphold other values. Teachers of English, for example, frequently encounter a stone wall of resistance. Literature, the kind of literature taught in the schools, is not only deadly dull but useless. It has some cultural value, no doubt, but the pupils have no wish to become "cultured." So many people who never attended school are doing very well for themselves economically. English teachers are jolly good fellows, friendly and hard working, but they apparently have no understanding of the workaday world which youth must serve.

#### THE RECONDITIONING OF VOCATIONAL EDUCATION

It is possible to sympathize with the impatience of the young to find places for themselves in economic society. One can understand the forces at work: the desire for financial security and independence, the fear that the stone will be rejected of its maker. What good are diplomas, credits, high marks, when these cannot be utilized in the struggle for life?

It is essential, however, that pupils should not be allowed to enter this struggle unprepared. It is important to determine the role that the schools should play. Is there a fundamental opposition between vocational and humanistic training? What is the basic meaning of "vocational"? Is it limited to the utilitarian, to that which is pecuniarily profitable? Professor John Dewey's definition saves it from

such constricting limitations: "A vocation means nothing but such a direction of life-activities as renders them perceptibly significant to a person, because of the consequences they accomplish, and also useful to his associates."<sup>1</sup> In this sense, it is clear that every man must follow some vocation, whether it be science or art, business or mechanical work.

It is a mistake, however, to restrict each person to some specialized and single pursuit. Such specialization is harmful to the potentialities of the pupil, as well as psychologically and socially undesirable. Each man is more than the occupation that he follows; he has a variety of callings, interests, duties. Especially when the swing in the direction of vocational education is extreme, is it essential to insist on the necessity for each pupil to discover, in time, what he is fitted for, his specific interests and aptitudes. The present, as Professor Dewey points out, must not be sacrificed in order to prepare for a problematical future. The development and enjoyment of the present must not be neglected. Pupils should be afforded the opportunity of bringing to light personal aptitudes that might otherwise remain hidden. They should be taught how to think, how to utilize the fruits of experience and insight.

It is, therefore, necessary that they should receive more than a narrow technical training. The schools should be more than an annex of business and industry. Vocational education must not continue the dogma that some persons are doomed to follow this or that specialized vocation—that some must be factory hands while others are reserved for the more intellectual and cultural pursuits. Technical proficiency is desirable, but technical proficiency alone is a travesty and a shadow of education. The curriculum must be concerned with fundamental, vitally important issues. It must furnish more than mere technical competence in some trade. If the democratic ideal is to be realized, more is required than the liquidation of illiteracy. How may the individual, living in a society of unprecedented complexity, learn to act intelligently, to make wise decisions? Only by utilizing to the full his essential qualities as an individual. He must be led to engage in a wide variety of experiences and activities

<sup>1</sup> John Dewey, *Democracy and Education*, pp. 358-59. New York: Macmillan Co., 1916.



in order that he may discover his true bent. The capacity for growth must not be arrested.

#### PROVISIONAL SYNTHESIS

Educational objectives do not exist apart from the human material undergoing the educative process. These objectives are inherent in the pupils and in the learning process. They serve as motivation and justification, but they are not distant goals toward which one patiently strives; they are immanent at every stage of the game. Consequently, educational objectives cannot be artificially or arbitrarily imposed.

How, then, are we to make pupils see the shortsightedness, the folly, of pursuing a vocational goal that is too restricted in scope? We cannot assume a high and mighty tone and assure them that, since we are older and more experienced, we know better. There was a time when such authoritarian arrogation of superior wisdom would have been respectfully accepted. That time is no more. We are now faced with the old problem: Shall we give pupils what they think they want, or shall we give them what, in our estimation, is best for their present and future welfare? It is a knotty question, but the distinction is fancied rather than real. It is possible to devise a method of reconciliation between a pupil's conception of what he wants and what is best suited to his needs. The resolution comes about, not through speculation or sermonizing, but through practice. The schools should attempt, as far as possible, to broaden the pupil's horizon of experience. The young can make decisions that are educationally and vocationally sound once they have had the opportunity of experimenting with life, of understanding themselves and the environment of which they form a part.

The depression mentality needs to be emancipated from the compulsions of contemporaneity. The historical perspective is essential if economic need is not to be given an exaggerated importance. Since the beginning of civilization, man has had to wrestle with the soil, solve the problem of feeding, clothing, and sheltering himself and his family. A scientific study of various cultures in the past demonstrates that, despite differences in organization, they have this in common: they make provisions for satisfying the basic needs

of human beings—food, safety, reproduction. Each culture thus creates a system of food and material production, but out of this system arise secondary needs. Machinery is set in motion for maintaining and preserving the body of traditional culture. Philosophies, theologies, laws of conduct, systems of value, and codes of wisdom are passed on from generation to generation. Religion is born. Man perceives the uncertainty of his own existence, the limitations that bound his desire, the precariousness of his life. The future is conditioned by the past, and the present, too, is overshadowed. As Malinowski declares:

Man, of all the animals, cannot live in the present; he cannot lead a hand-to-mouth existence from moment to moment. This must finally bring him to ponder on topics where emotions blend with cold reason and where the answer is dictated by emotions though it is largely framed by reason.

What is the ultimate destiny of man and of mankind? What is the meaning of life and the relations between man and the universe? Whence have we come and whither are we bound, and what is the sense of all man's fears, sufferings, and disappointments?<sup>1</sup>

Now that vocational education is to be extended on a wider front, measures must be taken which will save pupils from having to lead stunted, frustrated, embittered lives. Obtaining preparation for jobs does not mean that they must cease their efforts to understand and adjust themselves to the world in which they live. Vocational economic adjustment is but one phase of an organic process and rhythm. Man must live by faith; he must discover deep sources of beauty, refreshment, and enjoyment; he must learn to understand society and the individual as they interact; he cannot afford to discard the wisdom, the truths, and values of his forbears. The time is ripe for starting a movement which will liberalize and humanize vocational education, so that it will prepare the young for living as well as for earning.

<sup>1</sup> Bronislaw Malinowski, "Culture as a Determinant of Behavior," *Factors Determining Human Behavior*, pp. 161-62. Harvard Tercentenary Publications. Cambridge, Massachusetts: Harvard University Press, 1937.

## RETROACTIVE EXPERIMENT ON EFFECTS OF MILITARY TRAINING IN HIGH SCHOOL

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### OPPORTUNITY FOR INVESTIGATION OFFERED BY INTRODUCTION OF MILITARY TRAINING

**E**XPERIMENTAL studies have traditionally been performed under circumstances which permitted the manipulation of the experimental or conditioning factor while observations were being taken on the results. Many educational and sociological problems of the largest significance do not lend themselves to such active experimentation; but the same essential logic may be preserved through what may be termed retroactive experimentation—selecting cases which have already been acted on by different degrees of identifiable factors and observing the consequences. While this type of study is not wholly new, its full significance for educational research has not yet come to be recognized. It offers results altogether as rigorous as those provided by laboratory experimentation on problems of equal complexity, and, while certain safeguards need further development, the method is to be regarded as an extension of the experimental concept especially adapted to the needs of education and sociology. The study which follows is an illustration of this retroactive experimentation.

Military training, in the form of a Junior Reserve Officers' Training Corps, was introduced into New Hanover High School, Wilmington, North Carolina, in the autumn of 1937. This high school has an enrolment of some seventeen hundred pupils. Military training, consisting of five class periods and two drill periods, was given 365 minutes each week. The training was voluntary, each boy being free to elect it or not, and one-half credit was given for a year of cadet

training. The handbook of regulations states that "it is not the purpose of the government to make soldiers of the students who participate, but to develop in them those qualities of manliness, discipline, and leadership which will make these young men good citizens and natural leaders of men in whatever calling they may choose to follow in the years to come."<sup>1</sup>

Boys of the 1939 graduating class who had had two years of military training during their Junior and Senior years were compared with boys of the 1939 class who had had no military training whatever. There were seventy-seven boys in Group I, designated as "cadets," and seventy-three boys in Group II, designated as "non-cadets." A small number of boys who had taken a partial program of military training were omitted from the study.

#### TYPES OF BOYS ELECTING MILITARY TRAINING

The first question to which an answer was sought was: Which boys will elect to take military training when it is optional? Some persons argue that boys who are not getting along well in their studies or boys who want easy credits will predominate among those who choose R.O.T.C. work. The data presented in the second and third columns of Table 1 bear on this point. When military training was introduced into New Hanover High School in 1937, the Juniors who elected to take it for the remaining two years of their high-school course constituted a generally superior group. On an intelligence test (taken two years later) they stood about 10 per cent higher than boys who did not elect military training; their scholarship for the first two years was slightly higher; they had been about twice as active in extra-curriculum activities; they were rated the same on citizenship and had a slightly poorer attendance record but a better tardiness record. There is nothing to support the notion, either in the averages or in the complete frequency distributions, that boys of inferior ability and interest are those who volunteer for R.O.T.C. work; the evidence in the present case is in the contrary direction.

#### EFFECTS OF MILITARY TRAINING ON 1939 GRADUATES

The next question likely to be asked is: What effect does R.O.T.C. work have on the boys? Because the data indicate a fairly strong

<sup>1</sup> *R.O.T.C. Regulations*, p. 6. Wilmington, North Carolina: Department of Military Science and Tactics, New Hanover High School, 1937.

selective influence between the boys who take military training and those who do not, an immediate answer cannot be obtained to this question. That is, since the boys were different before they started

TABLE 1  
COMPARISON OF SEVENTY-SEVEN CADETS AND SEVENTY-THREE  
NON-CADETS AT END OF SOPHOMORE AND SENIOR YEARS

TRAIT	AVERAGE AT END OF SOPHOMORE YEAR		AVERAGE AT END OF SENIOR YEAR		GROWTH	
	Cadets (Group I)	Non- cadets (Group II)	Cadets (Group I)	Non- cadets (Group II)	Cadets (Group I)	Non- cadets (Group II)
1	2	3	4	5	6	7
Intelligence*			66.4	60.9		
Scholarship (marks)†	3.3	3.2	3.3	3.2	0.0	0.0
Scholarship (percentile rank)‡	50.5	48.5	51.1	47.8	0.6	-0.7
Athletic participation§	37.7	16.5	66.3	19.1	28.6	2.6
Club participation	1.0	0.5	1.4	0.8	0.4	0.3
Offices in clubs and class¶	0.2	0.1	0.6	0.1	0.4	0.0
Citizenship rating**	4.7	4.7	4.6	4.7	-0.1	0.0
Number of absences	9.6	9.3	8.0	12.0	-1.6††	2.7
Number of times tardy	0.8	1.3	1.7	3.5	0.9††	2.2
Honor-club members‡‡			32.5	20.6		
Age at graduation			17.5	17.8		
Attitude toward war§§			6.9	7.1		

\* Intelligence was determined on the Psychological Examination for Grades IX-XII of the American Council on Education, which is given throughout the state each year.

† Average mark was obtained by using an arbitrary scale, A=5, B=4, etc.

‡ Percentile rank is based on the average mark of each pupil for two years. Group averages do not total 100 because of class interval assumptions.

§ Athletic participation represents the sum of the percentages of each group who participated in an interscholastic sport to the extent of remaining on a squad for an entire season. The unit is therefore one person-sport-year.

|| Club participation is membership in a club or on the staff of the school annual.

¶ Officers are elected by pupils. Here is given the average number of offices held per boy in the group.

\*\* Citizenship is rated by each teacher. The average here was obtained by use of the arbitrary scale described for the average mark.

†† Since these traits are negative, a small or negative growth is favorable.

‡‡ The percentage of the group in an honor club: National Honor Society and Hi-Y. Teachers elect to former, club members to latter.

§§ Average of scores on Thurstone-Droba Scale for Measuring Attitude toward War.

their military training, they cannot be studied at graduation and the differences that are then observed be ascribed to the influence of the military training, for the differences observed will be a combination of selective factors and the experimental factor. Several things

can be done, however, to surmount this difficulty; and, if several comparisons are found to yield consistent results, some confidence may be placed in the conclusions.

Certain gross evidence can be obtained directly from the graduation status of the groups. While it cannot be said that the differences observed at graduation resulted from military training, what happened to the relative standing of the two groups of boys can be observed and inferences can be made concerning certain large questions about the effect of military training: Does it interfere with the preparation of lessons? Does it take so much time that the boys drop extra-curriculum activities? Do the cadets keep on growing at a rate that is above average? Or do the cadets and the non-cadets grow closer together?

The fourth, fifth, sixth, and seventh columns of Table 1 supply answers to such questions. The group that was superior in the beginning not only maintained its superiority under the influence of military training but definitely increased its lead in several areas. During their Junior and Senior years the cadets engaged in athletics more than three times as much as did other boys; they participated more widely in clubs; they held six times as many school offices; they had half again as many honor-club members; and they were markedly superior in both attendance and punctuality. They maintained their slight scholastic superiority and graduated at a slightly lower age than the boys who did not take the R.O.T.C. work. The slight drop in citizenship rating was due to the disinclination of the military officers to rate any cadet high on this trait.

A similar story is obtained by comparing the data of Table 1 in another way. The foregoing statements are based on a comparison of columns 4 and 5. One may, on the other hand, compare the growth indicated in columns 6 and 7. The same evidence is afforded as in the earlier comparisons; in every instance, except citizenship rating, column 6 is more favorable than is column 7. Greater differences existed at the time of graduation than existed at the time one group started the cadet work. Military training did not bring the two groups closer together; it seemed to develop their initial differences.

RECORDS OF TWO COMPARABLE GROUPS  
WITHOUT MILITARY TRAINING

The question faced at this point is: Granted that the cadets grew faster during their Junior and Senior years than did the non-cadets, would they not have done so anyway, apart from military training, because a superior group tends to grow at a faster rate? In other words, military training might even have acted as a slight deterrent on their natural rate of growth, and still the foregoing results could have been observed.

For the purpose of obtaining evidence on this question, boys of an earlier class were studied in the same way. The graduating class of 1937 was the last class in the New Hanover High School which had no military training at all. Data were obtained for these boys at the end of their Sophomore year, and two groups (Groups III and IV) were created with as nearly as possible the same characteristics as the two groups of the 1939 class. That is, record cards for the 1937 boys were placed tentatively in one group or the other and then shifted from one group to the other until the averages of the two groups on all the traits were close to the averages for the cadets and the non-cadets in Groups I and II. No boys were discarded from the 1937 class in the shifting, but the class was somewhat smaller. Columns 2 and 3 of Table 2 show the resulting averages for these boys at the end of their Sophomore year. The figures are to be compared with the corresponding columns in Table 1. The match is good in everything except absence, and, as these figures are equally low for both groups, the discrepancy is probably immaterial. Data on some traits were not available for the 1937 class.

The purpose of studying Groups III and IV from the 1937 class, neither of which had had any military training at any time, is to see whether the group that was superior at the end of the Sophomore year would, without any military training in their upper two years, increase their lead over the other group as much as the cadets of the 1939 class increased their lead over the non-cadets.<sup>1</sup> If their

<sup>1</sup> Another procedure is available for eliminating the effect of superiority in Group I on subsequent growth. The correlation may be determined between the amount of subsequent growth and the initial status in any trait, based on the boys of Group II or others who did not take military training. By means of the regression line from this



superiority of growth was as great as that of the 1939 cadets, then there would be no evidence that military training was a positive force in contributing to the differences observed in the boys graduating in 1939.

In the 1937 class both groups grew at practically the same rate in their Junior and Senior years. The data on the two groups at the

TABLE 2  
COMPARISON OF GROUP III (FIFTY-SIX BOYS) AND GROUP IV  
(FIFTY-FOUR BOYS) FROM 1937 CLASS AT END OF  
SOPHOMORE AND SENIOR YEARS\*

TRAIT	AVERAGE AT END OF SOPHOMORE YEAR		AVERAGE AT END OF SENIOR YEAR		GROWTH	
	Group III	Group IV	Group III	Group IV	Group III	Group IV
I	2	3	4	5	6	7
Scholarship (marks).....	3.3	3.2	3.3	3.2	0.0	0.0
Athletic participation.....	35.8	15.0	55.4	37.1	19.6	22.1
Offices in clubs and class...	0.2	0.1	0.4	0.4	0.2	0.3
Citizenship rating.....	4.8	4.8	4.7	4.7	-0.1	-0.1
Number of absences.....	8.4	8.1	11.6	10.4	3.2	2.3†
Number of times tardy.....	0.8	1.3	1.9	2.1	1.1	0.8†
Honor-club members.....			30.3	20.4		

\* The boys were divided so that their records would approximate, at the end of their Sophomore year, the records of the boys of the 1939 class at the end of their second year (see columns 2 and 3 of Table 1). The boys of the 1937 class had no military training at any time.

† Since these traits are negative, a small growth is favorable.

time of graduation are presented in columns 4 and 5 of Table 2, and the amounts of growth are shown in columns 6 and 7. Group III, which was superior to begin with, did not improve faster in a single trait studied. On the other hand, the inferior group (Group IV) showed a relatively better growth in four traits: athletic participa-

correlation table, the subsequent growth for Group II can be predicted (estimated) from average values equal to the initial average values of Group I. Presumably this estimate will be higher than the growth actually observed for Group II and may be substituted for the latter, thereby affording as direct a comparison with the subsequent growth of Group I as though the two groups had been equated initially. This correlation and estimate would have to be made for each trait separately. This method of correction was not employed in the present study because the other methods were available and seemed more direct.

tion, offices held, attendance, and punctuality. The two groups of the 1937 class started out the same as the 1939 groups at the beginning of their Junior year, but they did not end up the same. Groups I and II grew farther apart in five traits (not counting citizenship); Groups III and IV grew closer together on three traits, and in reverse order on a fourth (absence). There is no support in these data for the idea that the rapid growth observed for the cadets (Group I) during the last two years of high school, compared with the less rapid growth of the non-cadets (Group II), was merely a natural unfolding of a superior group.

It would, of course, be possible to omit Group IV entirely and to compare the growth of Groups I and III, since they were equal at the beginning of their Junior year. This analysis may be made by comparing either column 4 or column 6 of Table 1 with the same column in Table 2. While this comparison tells the same story as the more complex one described, it is probably not so dependable a comparison as the one outlined because a number of general factors in the school or the social situation may have changed during the two years. Such changes, if they occurred, are more likely to affect the absolute rates of growth (as reflected in column 4 or 6) than they are to affect differentials in rates of growth (differences between columns 4 and 5 or columns 6 and 7 in the same table). Hence two groups (rather than one) from the 1937 class were used to afford a control on rate of growth.

#### RECORDS OF EQUATED GROUPS WITH MILITARY TRAINING

Yet another comparison was made. Employing the two groups from the 1937 class did not seem entirely dependable. Certain large factors might have changed sufficiently to affect even differentials in rates of growth so that the control on rate of growth would not be reliable. Furthermore, some of the data were missing for the 1937 class, namely, club participation, intelligence, age, and attitude toward war. For a further comparison, boys of the 1939 class were again used, but this time the two groups were made equal at the end of their Sophomore year by eliminating some of the boys, namely, those who helped make the Freshman and Sophomore record of the cadet group superior and those who tended to pull down the earlier

record of the non-cadet group. About a fifth of the boys were thus eliminated, sixty boys being left in each group (Groups V and VI). Although created out of Groups I and II, these new groups were selected, not to be equal to either Group I or II, but simply to be equal to each other. The data are shown in columns 2 and 3 of Table 3.

TABLE 3  
COMPARISON OF RECORDS AT END OF SENIOR YEAR OF SIXTY  
CADETS AND SIXTY NON-CADETS EQUATED ON BASIS  
OF RECORDS AT END OF SOPHOMORE YEAR

TRAIT	AVERAGE AT END OF SOPHOMORE YEAR		AVERAGE AT END OF SENIOR YEAR		GROWTH	
	Cadets (Group V)	Non- cadets (Group VI)	Cadets (Group V)	Non- cadets (Group VI)	Cadets (Group V)	Non- cadets (Group VI)
1	2	3	4	5	6	7
Intelligence.....			63.5	63.5		
Scholarship (marks).....	3.2	3.3	3.2	3.2	0.0	-0.1
Athletic participation.....	18.3	18.3	53.3	23.3	35.0	5.0
Club participation.....	0.7	0.7	1.3	1.0	0.6	0.3
Offices in clubs and class.....	0.1	0.1	0.6	0.1	0.5	0.0
Citizenship rating.....	4.7	4.7	4.6	4.7	-0.1	0.0
Number of absences.....	10.2	10.2	8.9	12.8	-1.3*	2.6
Number of times tardy.....	0.8	0.8	1.5	3.1	0.7*	2.3
Honor-club members.....			28.3	20.0		
Age at graduation.....			17.6	17.8		
Attitude toward war.....			6.8	7.1		

\* Since these traits are negative, a small or negative growth is favorable.

The purpose of this comparison was to get two groups of boys from the 1939 class who would be equal in all the characteristics studied before the one group entered military training and who would subsequently be under the influence of the same general social and scholastic conditions. The comparison at the time of graduation, after Group V had had two years of R.O.T.C. work, should then be more conclusive with reference to the influence of the military training than the preceding comparisons had been.

The findings for these equated groups are shown in columns 4-7 of Table 3. They are essentially the same as those for Groups I and

II. The boys who became cadets in their Junior year showed over twice as much athletic activity, held six times as many offices, participated more extensively in all club work, were tardy only half as often, and had much less absence. Their scholarship was maintained.

These second and third comparisons of cadets and non-cadets confirm the first comparison of standing at the time of graduation and leave little room for doubt that, in the groups studied, military training not only attracted pupils who were, on the average, superior but gave them training which further developed their superior qualities in a number of areas, both athletic and social.

#### ATTITUDE TOWARD WAR

Particular interest centers in the attitude toward war. Does military training predispose boys toward war? To many people this question is of more importance than all the others. For the purpose of obtaining evidence on this point, the Thurstone-Droba Scale for Measuring Attitude toward War was administered to the 1939 class at the time of graduation. The results are shown in Table 1. The difference in the averages for the cadets and the non-cadets was only 0.2 of a point. After two years of R.O.T.C. work the boys of Group I were rated mildly pacifistic by this scale. For further comparison the scale was administered to the girls of the same class, who returned an average of 7.2—within 0.3 of a point of the average for the cadets. No cadet was revealed by the scale as being extremely militaristic, and only one was classed as strongly militaristic. On the other hand, thirty-two cadets rated strongly or extremely pacifistic. Among the equated groups of Table 3 the same relationships obtained.

As a further check on militaristic interests the boys were asked to indicate what vocations they expected to enter and, if they had changed their intentions during the past two years, to indicate what the changes were. Nine of the cadets and none of the non-cadets were interested in military service as a career; this number was one fewer, in each case, than the number interested in a military career when they were Sophomores. Three boys during their Junior and Senior years as cadets had changed their choices of lifework to a military career, but four others had changed away from it. There is,

therefore, no evidence in the present data that military training will make boys more militaristic in attitude or interest.

#### LIMITATIONS OF PRESENT STUDY

The influence of military training in the present instance seems rather satisfactorily established, but many questions remain. Will the results herein disclosed follow in other situations? In the present case the training was voluntary; what would the effect be if it were compulsory? In this instance it was new; would it be as effective when the novelty had worn off? It was only for two years; what would it do the third or fourth year? It was in high school; what would be the results in college, particularly if high-school military training had preceded? It was in a public school; in a private school would it prove a selective factor affecting the boys who were sent?

Further allowance should be made for the varying influences of the type of program and the personal qualities of the officers in charge of the training, as well as the influences of various traditional attitudes that would be developed over a period of time, under varying circumstances, by pupils, educators, and parents.

More refined research would be concerned with more penetrating, as well as more comprehensive, measurements of experiences previous to the training, of influences during the training, and of varied outcomes and their relative permanence. The problem of indexing subtle traits affords the greatest difficulty in present-day educational research and is undoubtedly the most serious weakness in this endeavor. Technical means permitting, we should like to know the effect of military training on each type of personality pattern—which are benefited and which are harmed by it. With respect to which future pursuits or vocational and civic interests is a personality outcome to be judged as desirable or undesirable? Finally, if widespread and stable benefits are found, is it possible to identify and to isolate the essential beneficial elements in a program of military training so that these elements could be offered in entirely different forms of education—any form that might be deemed appropriate to the general situation in a particular school?

Many of the differences reported in the present study were small; some were surprisingly large. Taken together, the results tell a

consistent story. No probable errors have been presented; they would not seem to serve any useful purpose. All they can do is to indicate a certain area of doubt, which is likely to be much too small. They make allowance for certain so-called "chance factors," but they make no proper allowance for the major changes in conditions alluded to in preceding paragraphs. Quite apart from formal probable errors, both the research worker and the practical educator will appropriately demand more studies, made under similar and under divergent conditions, before they formulate conclusions that are other than tentative and strictly conditional.

#### CONCLUSIONS

Half the boys of the 1939 graduating class at New Hanover High School, Wilmington, North Carolina, had taken two years of military training. They were compared with the other half who had not taken any military training.

In general, and so far as observed, military training attracted a superior group of boys; offered no interference with their more rapid development along mental lines; and afforded definite stimulation to extrovert adaptation, participation, and conformity.

If the experience reported herein is confirmed by other studies, the conclusion may be justified that a limited amount of R.O.T.C. work accomplishes what military men have claimed for it and what certain others have frequently questioned. Military leaders have asserted that a certain amount of discipline is good for youths; certain other people have deplored strict discipline, arguing that it destroys initiative and warps personality development. The experience in the present case supports the military view and is contrary to the latter view.

A general hypothesis is suggested: drill in specific compliance with formulated requirements, in certain restricted areas of life, and for a limited portion of time in any day or week, may be a wholesome element in a person's development and possibly in his mature life. This generalization is offered as a basis for further research and for further refinement.

## SUGGESTIONS TO THE NOVICE IN THE MECHANICS OF RESEARCH

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THE graduate student or school administrator undertaking his first research will find a number of books dealing with the general principles of methodology. With these as a background, rich fare is provided by the excellent research reports in which the educational periodicals abound, by published theses, and by reports of professional organizations and of state and city research divisions. From these the thorough student will garner many ideas for the formulation of his own problem and for planning his procedure. It will be purely by accident, however, if he encounters in his reading the few words of caution about the details of mechanics which might save labor and anguish in the advanced stages of his work.

The omission does not reflect on those who report research. In the first place, the purpose of research reports is not to train the novice but rather to communicate procedures and findings to others interested in the problems. Second, mature workers have learned to take such simple precautions as a matter of course. Third, writers who are themselves still relatively inexperienced are not inclined to report their missteps. Books on research method do sometimes touch on the mechanical phases, but their touch is light and is more likely than not to be confined to discussion of the construction and use of the questionnaire. Some students are fortunate in being enrolled in seminar courses in which professors and fellow-students give them the benefit of their thinking and experience. Ordinarily, however, this assistance is confined to the major aspects of the study, and the student is left to his own devices insofar as details of procedure are concerned. With little or no research experience, the average student is scarcely aware of the many possibilities for the intrusion of me-



chanical difficulties and of the consequent desirability of precautionary measures.

When the problem has been formulated and the broader aspects of procedure have been determined, the student begins the work of gathering, organizing, and treating the data so that they may be interpreted and conclusions may be drawn. At this point the novice is likely to lay the foundation for future difficulties by failing to foresee and to guard against ambiguities, inconsistencies, and other irritations which may impede the progress of his study. Especially is this true when clerical assistance is employed, as is often the case with statistical theses or the research of school administrators; the more persons who are concerned in a study, the more necessary are precautions against mechanical difficulties.

Though experience may be the best teacher, it is not always the most efficient; it sometimes proves a costly road to learning. To the writer, it seems highly desirable that certain elementary preventives of mechanical difficulties be brought to the attention of the novice in research. The following suggestions are gleaned from a notebook which is the repository for ideas occurring while at work. Some are results of unhappy experience, others of forethought. All are almost absurdly simple, the sort of thing of which one says, "Of course! Why didn't I think of that?"—after the damage is done. Indeed there is nothing here except what one *ought* to think of but often does not.

The suggestions offered deal with mechanical procedure in the somewhat neglected area between the stage at which the problem has been formulated and the general method of investigation determined, and the point at which the findings of the study emerge for interpretation. The first group is concerned with the mechanics of gathering data and is devoted largely to the form which these should take. The second group covers the manipulation of the raw data and embraces such items as notation, computation, and clerical procedure. These suggestions are addressed, not to the experienced worker, who will find in them nothing of value to himself, but to the novice in research, whether he be school administrator, teacher, or graduate student. If he should find herein even one suggestion that smooths the path of a proposed investigation, the list will have served its purpose.

## GATHERING DATA: QUESTIONNAIRES AND OTHER FORMS

1. Collect only the data you will need. Compiling unnecessary data is a waste of time and energy and a strain on the patience of those who co-operate by furnishing the information.

2. Wherever possible, collect data in the form in which it will be used. This plan will save an intervening step of translation. Suppose, for instance, that you are interested in the passing mark. If data are collected from different schools in the form of literal marks, these will have to be translated to numerical equivalents before they can be compared; hence it is preferable to obtain the original data in numerical form.

3. Allow plenty of space in questionnaires and other forms for recording the necessary data. Stanislaus Sczelanewski cannot write his name in a space an inch and a half long. If he does, you will be unable to read it. If you cannot spare more than four lines for a list of graduate courses taken, do not send your questionnaire to advanced students; they probably will not respond. A safe rule is to prepare for extreme cases, and the average will then be automatically provided for.

4. Where space and the nature of the data permit, the questionnaire should present the possible responses and provide for indicating the one which applies. This arrangement will eliminate the necessity for reading and interpreting the response, will save time for the person co-operating, and will prevent irrelevant answers resulting from carelessness or misunderstanding.

5. If responses to a questionnaire are to be indicated by checking, take care to provide for all reasonable answers. If the respondent is made to choose between "Yes" and "No" when the correct reply should be "Sometimes" or "Rarely," the data are neither objective nor accurate.

6. When several items are to be ranked, specify that *all*, or *those used*, *those which apply*, etc., should be included. Indicate that the "highest" or "most frequent" should be ranked 1, the next 2, and so on, and that items of equal rank should be given the same number. It is always necessary to revise ranked materials; even college presidents cannot be depended on to follow the conventions of ranking. The essential thing is that you understand the respondent's meaning.

7. When ranked selections are to be made from a list of items (as first, second, and third choices, or "most helpful," "very helpful," "helpful"), specify that the items selected be *numbered*: 1, 2, 3, etc. Unless this precaution is taken, a number of respondents will merely check the selected items, and your purpose will be defeated.

8. When requesting the rating of a normally distributed trait, make the point that the *average rating* should occur most frequently. This precaution will partly offset the tendency toward over-rating, which often produces an unwarranted skewness in the distribution.

9. Traits to be used as bases for rating should be described rather than indicated by a single word. "Leadership" means different things to different people.

The rating will be much less subjective if the trait is defined: "Leadership—Initiative; independence; resourcefulness; ability to plan well, to delegate work or responsibility, and to secure co-operation; ability to command respect and inspire confidence."

10. Wherever possible, include and indicate means of checking data in questionnaires. If you are studying the distribution of the budget, for instance, be sure to ask for the total as well as the items which comprise the total. It is often possible to indicate a check, such as, "Sum of Items H, J, and L should equal B." Devices of this sort often reduce materially the amount of follow-up correspondence necessary.

11. Try to avoid requesting percentages, except roughly: 50 per cent, 25 per cent, etc. Instead, ask for the necessary data and do the computation yourself. You will have to check it anyway, for the frequency of error is high, and you may as well save your informant the trouble of computation and yourself the annoyance of discovering error.

12. Specify emphatically when *only one* item is to be indicated.

#### TREATMENT OF DATA: CODES AND NOTATIONS, STATISTICS AND CLERICAL PROCEDURE

1. The entire procedure should be planned, in as great detail as possible, before the work is begun. It will always be necessary to make modifications as the study progresses, but a well-developed plan will go far toward eliminating inefficient procedure.

2. If items are to be designated by letters, avoid letters which may be confused. In determining which these are, bear in mind that handwriting differs, and letters which could not possibly be confused in one person's writing may be readily confused in another's. It is wise to list the letters that you propose to use and to study the list carefully for possible ambiguities. To cite a few possibilities: in script, *b* and *f*, *e* and *l*; in printed capitals, *D* and *P*, *X* and *Y*; in small printed letters, *h* and *n*, *c* and *e*; and capitals similar in form to the corresponding small letters, such as *O*, *C*, *K*, *P*, and *X*.

3. Where numbers and letters may occur together, as *2E*, the letters *I* and *O* should be omitted from the notation because they are readily confused with the numbers *1* and *0*. When many different handwritings are involved, as in a questionnaire, it is advisable to omit also *G* and *Z*, which, carelessly written, may be confused with *6* and *2*.

4. Always distinguish between *o* and "—" and emphasize the point particularly with clerical assistants. Zero should always be used as a number; the dash, to indicate that information is lacking. When the datum is missing temporarily only, as often happens in preliminary tabulations, the space should be left blank. Confusion on this point can seriously impair the reliability of data. It makes a difference, for instance, whether the "number of days absent" is *o* or *unknown*.

5. In recording test scores, make a point of distinguishing between pupils making the minimum score and those not taking the test. Confusion can be prevented by insisting that numerical scores be recorded only for pupils tested, using "-" for pupils not tested.

6. In dealing with school grades, be sure to distinguish clearly between A and B levels. Is Grade V A or V B the more advanced? Practice differs in this regard. To clarify the matter for everyone concerned, particularly when data are obtained from several school districts, use *V High* and *V Low* or *V H* and *V L*.

7. In long tabulations and lists, leave a space after every fifth line as an aid to reading. This arrangement is especially helpful when data are arranged in columns, as in large tables. In devising forms, use heavy lines, or lines of a different color, to separate the data into groups of five.

8. Before beginning any statistical work, decide on the treatment of half-units. Most workers agree that .49 is to be dropped and .51 increased to the next unit, but what is to be done with .50? It is well to increase and drop alternately or to increase throughout and adjust the total. Some fixed policy should be adhered to in order that corrections may be applied later if desired.

9. Accept and adhere to a convention of representing intervals. It is recommended that in tabular materials the limits be expressed as 5-9.9, 10-14.9, etc. Mid-points may be used for mature readers, as 7.5, 12.5, etc. Clarity with respect to intervals is of particular importance in dropping decimal places. Does 3 mean 3.0000-3.9999, or does it mean 2.5000-3.4999? It is suggested that the latter limits be used, because class intervals should be expressed by the mid-values rather than by the lower limits. However, responsible research workers sometimes use the former. The important considerations are consistency and clarity of meaning.

10. Be consistent in the number of decimal places to which computations are carried. If one coefficient of correlation is .237, do not report another as .38. If the second coefficient should actually be .380, remember that the zero in the third place has significance and should not be dropped.

11. Where possible, perform one operation throughout before beginning another, to prevent differences in technique. In tabulating data on a number of items for several groups, tabulate the same item for all groups rather than all items for each group separately.

12. Take the time to label everything. Even rough computations and preliminary tabulations should be labeled in order that they may be recognizable and understandable long afterward.

13. Never discard rough computations or notes. They are frequently useful in checking procedure, locating error, or performing further computation. Every scrap of relevant material should be preserved until the completion of the research.

14. Check every computation immediately. It is easy to correct an error at

once, but to do so later may be impossible without duplicating days of work. To check as you go often requires will-power, as there is great temptation to hurry along in order to satisfy your curiosity about the findings.

15. Cultivate the "jot-it-down" habit. Work with a notebook beside you, and record ideas as they occur. Unless you do so, many valuable observations and suggestions for treatment of data will be lost.

16. Record every decision at once, or you may reverse your decision the next time the question arises. Take the time to form a considered judgment.

17. Before employing clerical help whose abilities you do not know, examine them on the type of work that they are to do. Tests for this purpose are available in some areas, and useful measuring instruments can easily be devised. A clerk who cannot see decimal points, or one who cannot hold in mind a given number while quickly comparing it with each value in a column, will be worse than useless for the operation indicated.

18. See that every clerical assistant initials his work. This precaution will help to reveal instances of inefficiency and will be psychologically effective in helping to prevent it. Moreover, in the event that a systematic error is discovered in the work of some one person, the work to be repeated can be readily identified.

19. Leave nothing to the judgment of clerks until you have acquired confidence in that judgment. Even then it is wise to delegate as little as possible of the responsibility for decisions. You cannot too deeply impress clerical assistants with the idea that it is better to ask a question than to make a mistake. It should not be necessary to observe that you will not succeed if you allow your manner to suggest that you consider their questions unintelligent or bothersome.

20. The clerical staff should be cautioned to write numerals simply and clearly. The numerals 0, 3, 4, 5, 6, 7, and 9, carelessly written, are subject to error; 0 is mistaken for 6; 3 and 5 are confused; and 7 and 9 may be mistaken for 1 and 4, respectively. In a large-scale project it is advisable to give the clerical staff brief training on this and similar points and to furnish typewritten notes for reference.

21. Special care should be exercised in writing letters which are easily confused (see paragraphs 2 and 3 above).

22. Do not permit either erasure or writing over an error. It is seldom more unsightly, and certainly more accurate, to cross out the error and write the correction above or beside it. When tallying items in groups of five, the entire group in which an error occurs should be plainly crossed out and a corrected group substituted.

23. Allow the clerical staff frequent brief rest periods. From five to ten minutes an hour is a satisfactory recess from close work requiring accuracy, such as tallying, copying, or computation. In the interest of accuracy, such a recess should be insisted on, though it will seldom be necessary to insist.

The inexperienced research worker can be spared much annoyance if he will but give serious thought to the mechanical details of gathering and manipulating data. For smooth progress it is imperative, as has been suggested above, that precautions be taken to insure the collection of necessary data in economical and unambiguous form with a minimum of opportunity for error. In the handling of raw data, difficulties may be avoided by taking precautions against confusion of symbols, insuring consistency of statistical procedure, careful labeling and preservation of materials, and effective control and guidance of clerical assistants. The list of suggestions given above is by no means exhaustive. Experience will add to their number. For the beginner, however, it is hoped that a few of the suggestions herein will prove effective in preventing difficulties and that the list itself will serve both as a nucleus for his own compilation and as a stimulus to forethought concerning the details of mechanical procedure.

## SELECTED REFERENCES ON SECONDARY- SCHOOL INSTRUCTION

### III. THE SUBJECT FIELDS—CONTINUED

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THIS third and final list of selected references on secondary-school instruction to appear in the current volume of the *School Review* contains items dealing with the subject fields not represented in the list published in the February issue, namely, industrial and vocational arts, agriculture, home economics, business education, music, art, and health and physical education. The present list, like the first and the second, follows a definition of "instruction" which includes its three main aspects of (1) curriculum, (2) methods of teaching and study and supervision, and (3) measurement.

#### INDUSTRIAL AND VOCATIONAL ARTS<sup>1</sup>

HOMER J. SMITH

University of Minnesota

199. *American Vocational Association Journal and News Bulletin*, XV (November, 1940), 203-45.

This number shows the practically complete program of the annual convention of the association held at San Francisco, December 16-18, 1940. Divisions, themes, topics, and speakers which comprise this program will impress the reader by reason of their breadth and practicality.

200. CRESSMAN, PAUL L., MCCARTHY, JOHN A., STIER, L. G., SUTTON, WILLIS A., and WHITNEY, ALBERT W. *Industrial Safety Education in Schools*. School Health Monograph No. 10. New York: Metropolitan Life Insurance Co. Pp. 48.

This brochure was prepared by a committee of five men, assisted by several leaders in vocational education. The major headings are "The Problem," "Safeguarding Equipment," "Studying the Situation," and "Principles of Industrial Safety Education Applied to Schools."

<sup>1</sup> Item 670 in the list of selected references appearing in the November, 1940, number of the *Elementary School Journal* contains a bibliography of more than eighty items on the general shop.



201. *Education* (Industrial Arts Number), LX (May, 1940), 545-601.

Ten articles concerning offerings, enrichment, methods, supervision, safety, and kindred matters have been provided by leaders in this important curriculum area.

202. FRYKLUND, VERNE C. *Industrial Arts Teacher Education in the United States*. National Association of Industrial Teacher-Trainers, affiliated with the American Vocational Association, Bulletin No. 2. Bloomington, Illinois: McKnight & McKnight, 1941. Pp. 112.

An objective report concerning higher institutions engaged in preparing and up-grading teachers of industrial arts. Forty tables and fifteen figures aid in presenting data about instructors, departmental aims, course requirements, directed teaching, administrative arrangements, etc.

203. GREENLY, RUSSELL J., and KNAPP, W. A. (compilers and editors). *Selected Papers from the First Annual Foremen's Institute of Indiana*. Lafayette, Indiana: Purdue University, 1940. Pp. 62.

An excellent set of readings, written in popular style, in the field of industrial management and public relations. Special attention is given apprenticeship.

204. *Industrial Arts and Vocational Education* (Projects' Number), XXIX (November, 1940), 1A-32A, 347-94.

A special issue of the magazine devoted to projects and problems suggestive for industrial course work and leisure-time activities. A few articles of the usual types appear, as do the customary number of advertisements of shop equipment and supplies.

205. LEASURE, RALPH B. "Pupil Personal-Rating Report Card," *Industrial Arts and Vocational Education*, XXIX (September, 1940), 262.

One page serves to justify and to show in full a personal rating scale and report card useful in industrial and other class situations. Personal characteristics are given major emphasis.

206. "List of Selected Defense Occupations," *Occupations*, XIX (November, 1940), 121-24.

Presents a list of nearly four hundred trades or jobs deemed essential to national defense—a list of great usefulness to those giving counsel and instruction with reference to industrial pursuits. Code numbers recently adopted by the United States Employment Service appear with all occupational types.

207. MCSHERRY, FRANK J. "Skilled Labor for the Essential Industries," *Trained Men*, X (Autumn, 1940), 3-9.

An official of the War Department presents the need of emergency training and some major problems incidental thereto, before, during, and after the period of preparedness.

208. *Occupational Adjustments of Vocational School Graduates*. Research Bulletin No. 1. Washington: American Vocational Association, Inc., 1940. Pp. x+132.

This report, by the Research Committee of the American Vocational Association, covers a survey of the Williamsport (Pennsylvania) area of sixty-mile radius. It concerns high-school graduates majoring in agriculture, home economics, and industrial education. Details are shown concerning pupil characteristics, guidance practices, offerings and administrative arrangements, preparation, placement, follow-up, reactions to training received, etc.

209. RAKESTRAW, C. E. "Co-operative Part-Time Diversified Occupations Program," *Occupations*, XVIII (March, 1940), 403-6.

A clear statement, in story form, of how small secondary schools can provide vocational preparation and experience in a variety of fields for selected pupils. Every word in the title is meaningful, and the author has attained rare clarity in brief space.

210. SHAFER, BOYD C., and GIESE, WILLIS E. "Training Workers for Industrial Citizenship," *Industrial Arts and Vocational Education*, XXX (January, 1941), 1-3.

A brief and pointed statement that suggests the responsibility of industrial teachers for imparting related information beyond the usual technical kind. Materials for scheduled or incidental presentation are clearly outlined in a full-page organization chart.

## AGRICULTURE

T. E. SEXAUER

Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa

211. COOK, G. C. "Evaluating Outcomes of Instruction in Farm Mechanics," *Agricultural Education Magazine*, XIII (August, 1940), 32-33.

Pupil abilities, oral responses, notebooks, daily appraisals, written tests, and completed projects are discussed as means of evaluating the outcomes of instruction.

212. DEALTON, ERNEST L. "Our Objectives in Farm Mechanics," *Agricultural Education Magazine*, XII (May, 1940), 211.

Lists interests, ideals, appreciations, and abilities that should be developed in farm mechanics.

213. DICKERSON, RUSSELL B. "Determination of Managerial Training Contest for the Course in Farm Management for All-Day Pupils in the Sussex, New Jersey, High-School Area," *Agricultural Education Magazine*, XII (January, 1940), 134-35.

Attempts to discuss, select, evaluate, and organize the managerial contest for a course of study for all-day pupils in vocational agriculture in a high-school area.

214. EKSTROM, G. F. "Improving Instruction in Part-Time Classes," *Agricultural Education Magazine*, XIII (July, 1940), 10-11.

Comprehensive programs of part-time work in Iowa and Minnesota are discussed.

215. FAY, IVAN. "It Depends on the Teacher," *Agricultural Education Magazine*, XIII (November, 1940), 90-91.  
Discusses teaching opportunities in connection with supervised practice.
216. "From a Superintendent to a New Teacher," *Agricultural Education Magazine*, XIII (September, 1940), 44-45.  
A superintendent writes a letter to a beginning teacher in vocational agriculture, giving suggestions that the teacher might follow.
217. GUITTEAU, J. A. "Functionalizing Instruction through Student Participation in Organized Group Projects," *Agricultural Education Magazine*, XII (February, 1940), 148-49.  
Organized group projects in the state of Washington are discussed as a means of providing instructional material.
218. HAMMONDS, CARSIE. "Organization of Subject Matter," *Agricultural Education Magazine*, XII (April, 1940), 189.  
The importance of the organization of subject matter is discussed, and methods of organization are described.
219. IOWA STATE DEPARTMENT OF PUBLIC INSTRUCTION. *Course of Study for High Schools: Agriculture: Non-vocational Course for Grades 9 and 10*. Des Moines, Iowa: State Department of Public Instruction, 1940. Pp. 154.  
A two-year course of study that has been organized on a problem-teaching basis. References and questions are provided in connection with the problems.
220. JETT, IVAN. "Teaching Co-operation through the F.F.A.," *Agricultural Education Magazine*, XII (April, 1940), 197.  
Describes activities of Stamping Ground (Kentucky) Chapter of the Future Farmers of America, where the F.F.A. is used to teach co-operation.
221. MERRILL, H. G. "Teaching That Moves Farmers to Co-operative Action," *Agricultural Education Magazine*, XIII (August, 1940), 30.  
Shows how co-operative activities may be brought about in the community by proper teaching in an adult evening school.
222. SHOFTAW, LAVAN. "Experiences in Departmental Housekeeping," *Agricultural Education Magazine*, XIII (October, 1940), 64-65.  
Describes the ways in which a department of vocational agriculture can be kept neat and clean.
223. SMITH, W. A. "Materials of Instruction: What They Are, and How They May Be Located and Used," *Agricultural Education Magazine*, XII (June, 1940), 228-29.  
Sources of information are given. Material that is not desirable is sorted out, and the rest is adapted in such a way that it will fit local needs. Various means by which teachers of agriculture can help one another are discussed.

224. WARBURTON, C. W., MANIFOLD, C. B., KELLOGG, CHARLES E., and BARNES, C. P. "The Remedies: Education and Research," *Soils and Men*, pp. 198-222. Yearbook of Agriculture 1938, United States Department of Agriculture. Washington: Government Printing Office, 1938.

Discusses means of carrying on extension and demonstration work in a community.

#### HOME ECONOMICS<sup>1</sup>

RUTH TOWNSEND LEHMAN  
Ohio State University

225. ANDREWS, BENJAMIN R. "Consumer Education in Home Economics," *Practical Home Economics*, XVIII (June, 1940), 173, 193-94.

Discusses in a practical way what home economics may contribute to the high-school girl's knowledge of the underlying values that should guide spending, budgeting, "buymanship," and the use of goods and services if the maximum of satisfaction from one's spending is to be obtained.

226. BROWN, MURIEL W. "Community Organization for Family Life Education," *American Vocational Association Journal and News Bulletin*, XV (September, 1940), 156-59, 165.

A progress report of the first two years of the demonstration programs in family-life education which are being developed, with the co-operation of the United States Office of Education, in four dissimilar communities in different sections of the country. Discusses objectives, plan of organization, materials and projects developed by the respective centers, and curriculum changes in the school program.

227. BROWN, MURIEL W. "Speaking of Housing Again," *Journal of Home Economics*, XXXII (September, 1940), 432-36.

Gives valuable suggestions concerning content and methods for secondary-school work on housing.

228. BRUNNER, EDMUND DE S. "Education for Home and Family Life in the Light of Social Trends," *Journal of Home Economics*, XXXII (May, 1940), 285-90.

Although addressed primarily to persons concerned with the education of adults, this article gives excellent material to serve as a background for the thinking of the secondary-school teacher in planning a program.

229. "Evaluation of Progress in Community Programs in Education for Home and Family Living." Misc. 2158 (revised). Washington: United States Office of Education, Vocational Division, 1940. Pp. 13 (mimeographed).

Gives a brief statement of principles and procedures, followed by a useful bibliography on community programs and on evaluation.

<sup>1</sup> See also Item 686 (Spafford) in the list of selected references appearing in the November, 1940, number of the *Elementary School Journal*.

230. LEE, VIRGINIA. "Relating the Study of Textiles to High School Girl's Interests," *Practical Home Economics*, XVIII (February, 1940), 43, 61.

Suggests how the teacher may make use of the high-school girl's concrete questions concerning fabrics and garments and thus teach to develop more intelligent buyers.

231. MASON, MARY A. "The Secondary School and Community Housing," *Journal of Home Economics*, XXXII (March, 1940), 145-49.

Describes what can be done through home-economics classes or through the co-operation of several subject-matter groups in developing a functioning program of education in housing.

232. "Socio-economic Research Abstract Series of the Home Economics Education Service": "An Annotated Bibliography on Housing for Use in Home Economics Education," Misc. 2230-7 (August, 1940), pp. vii+41 (mimeographed); "Attainable Levels of Living: Their Relation to Price Levels and Family Income," Misc. 2230-3 (September, 1940), pp. vii+67 (mimeographed). Washington: United States Office of Education, Vocational Division.

Two more reports in a series dealing with family income and cost of living. The first is an excellent source list of materials—suitable for teacher and pupils—on such problems as standards for healthful housing, financing of home ownership, slum clearance, and the teaching of housing. The second report is particularly interesting to the teacher because of the real-life situations which are presented as problems for class discussion.

233. SPAFFORD, IVOL. "The Home Economics Teacher and the Community," *Practical Home Economics*, XVIII (June, 1940), 171-72.

Discusses the relation of the home-economics teacher to the community in terms of the influence that home economics has had in her own life, the degree to which her teaching is related to the lives of her pupils, and her influence on the place occupied by home economics in the larger educational program of the community.

234. TAYLOR, KATHARINE WHITESIDE. "Conserving Family Ideals," *Practical Home Economics*, XVIII (September, 1940), 242, 264.

Emphasizes the importance of "feeling tones" and attitudes between persons in democratic family life as compared with the external techniques or activities which reflect them.

235. VAN HEULEN, BARBARA. "Money Management and Credit Problems of the Home," *American Vocational Association Journal and News Bulletin*, XV (February, 1940), 39-40, 54.

A realistic approach to the teacher's problem of becoming oriented concerning actual money-management problems in the homes of her community.

236. WHITEHEAD, EUGENIA. "An Approach to Sex Education," *Journal of Home Economics*, XXXII (June, 1940), 374-77.

Describes the procedures followed in developing and teaching a unit in sex education to a home-economics class for boys.

### BUSINESS EDUCATION

FREDERICK J. WEERSING

University of Southern California

237. BLACKSTONE, E. G. "Summary of Research in Typewriting," *National Business Education Quarterly*, VIII (March, 1940), 15-16, 42-45.

Summarizes, in brief space, recent data regarding status, objectives, prognosis, keyboard approach, teaching devices, tests, and contests.

238. BLACKSTONE, E. G. "Summary of Research in Bookkeeping," *National Business Education Quarterly*, VIII (May, 1940), 15-16, 29-31.

Similar to "Summary of Research in Typewriting."

239. *The Business Curriculum*. Sixth Yearbook of the National Commercial Teachers Federation. Bowling Green, Kentucky: National Commercial Teachers Federation (J. Murray Hill, secretary, % Bowling Green Business University), 1940. Pp. xviii+456.

Consists of fifty-four chapters by as many specialists on general and particular aspects of the curriculum, arranged in four parts, having to do with principles of the curriculum, the foundations of curriculum-making, individual business curriculums, and the status of teaching business subjects. A noteworthy volume.

240. *Business Education in School Situations*. Proceedings of the University of Chicago Conference on Business Education, 1939. Chicago: University of Chicago Press, 1939. Pp. viii+36.

A series of highly authoritative statements, especially on criteria and implementation, relating to basic considerations in this field.

241. COMMERCIAL EDUCATION ASSOCIATION OF THE CITY OF NEW YORK AND VICINITY. Ninth Yearbook, 1938-1939: Part I, *Highlights in Commercial Education*, pp. xii+186; Part II, *Achievement in Commercial Education*, pp. xviii+108. New York: Commercial Education Association of the City of New York and Vicinity, 1939. (For sale by University Book Store, New York University.)

Part I, which is the proceedings of the association convention meetings, consists mainly of hints and "highlights" by more than forty contributors on phases of business education. Part II consists of eleven chapters by as many authors on the contributions of research to problems and subjects in business education.

242. *The Contribution of Business Education to Youth Adjustment*. Thirteenth Yearbook of the Eastern Commercial Teachers Association. New York: Eastern Commercial Teachers Association, 1940. Pp. xx+408. (For sale by University Book Store, New York University.)  
Consists of sixteen sections, each containing three or four addresses, on the relation of a phase of business education to the national youth problem or on methods of teaching the major business subjects.
243. "Effective Management of Personal Finances: A Functional Objective of Secondary Business Education," *National Business Education Quarterly*, VIII (December, 1939), 5-48.  
Contains significant articles on money management as a part of general business education.
244. FORKNER, HAMDEN L. "Training for the Distributive Occupations," *Teachers College Record*, XLII (October, 1940), 28-34.  
A summary of employment needs and scope of training program under the George-Deen Act.
245. GIVEN, JOHN N. "An Experimental Program in Business Education," *Journal of Business Education*, XV (June, 1940), 14-16.  
Describes an effort to bring the high-school business curriculum in Los Angeles into line with modern educational concepts and changing business conditions.
246. HANNA, J. M. *Fundamental Issues in Business Education*. Monograph 48. Cincinnati, Ohio: South-western Publishing Co., 1940. Pp. 56.  
An effort to discover and interpret the more important problems relating to aims and to general organization of business education and of business subjects. Based on opinions of seventy-eight experts.
247. *Improvement of Business Education in the South through Curriculum Revision*. First Yearbook of the Southern Business Education Association. Lexington, Kentucky: Southern Business Education Association (H. P. Guy, secretary, % University of Kentucky), 1939. Pp. 120.  
Devoted chiefly to outlines and discussion of courses of study in a few of the major business subjects.
248. *The Improvement of Classroom Teaching in Business Education*. Twelfth Yearbook of the Eastern Commercial Teachers Association. Philadelphia: Eastern Commercial Teachers Association (1210 Walnut Street), 1939. Pp. xxxii+384.  
Consists of thirteen sections, each dealing with the problems of classroom teaching in a major business subject or field.
249. MALUEG, EVELYN, and SNYDER, LOUISE M. "Shorthand Success in College," *Journal of Business Education*, XV (February, 1940), 17-18.  
A significant study of the abilities required for success in shorthand.



250. MARKWICK, EVANGELINE. "Survey of the Occupation of the Medical Secretary," *Business Education World*, XX (February, March, and April, 1940), 484-88, 615-17, 675-78.  
A detailed investigation particularly significant for business departments of junior colleges. Includes an analysis of duties, salaries, opportunities, conditions of work, promotional opportunities, and training requirements.
251. NICHOLS, FREDERICK G. "Facing the Facts in Business Education on the Secondary School Level," *Education*, LX (January, 1940), 257-63.  
A frank presentation of the greatest current weaknesses, with suggestions for improvement.
252. ROWE, CLYDE E. "Significant Research in Shorthand," *National Business Education Quarterly*, VIII (May, 1940), 21-22, 48-52.  
Presents, under a dozen or more headings, the chief findings of past research.
253. THORNDIKE, E. L. "Increasing Knowledge and Rationality about Economics and Business," *Teachers College Record*, XLI (April, 1940), 587-94.  
A highly suggestive area of content at present largely neglected by business teachers.
254. TONNE, HERBERT A. *Business Education: Basic Principles and Trends*. New York: Gregg Publishing Co., 1939. Pp. viii+344.  
A competent, scholarly, comprehensive treatment of all phases and levels. Intended as a textbook for a general course for training teachers.

MUSIC<sup>1</sup>

ANNE E. PIERCE  
University of Iowa

255. CASE, HARRIET. "The Problem of the Adolescent Voice," *Music News*, XXXII (March 21, 1940), 12-13.  
A teacher of artist singers presents her views regarding voices of boys and girls of secondary-school age. She indicates methods of teaching that will bring about correct singing habits and will insure good singing in more mature years.
256. CHRISTY, VAN A. *Glee Club and Chorus*. New York: G. Schirmer, Inc., 1940. Pp. viii+150.  
A handbook for the vocal teacher, with helpful suggestions about organizing, conducting, and maintaining choral organizations. Several pages are devoted to well-selected and classified lists of octavo music and textbooks.

<sup>1</sup> See also Items 645 (Pierce), 646 (Scholes), and 649 (Ward) in the list of selected references appearing in the November, 1940, number of the *Elementary School Journal*.

257. DENNIS, CHARLES M. *A Summary of the Course in the Teaching of Secondary School Music*. Ann Arbor, Michigan: Edwards Bros., Inc., 1940 (revised). Pp. 34.

This small book gives helpful comments regarding the pupil, methods of teaching, credits for music courses, vocal and instrumental music, rehearsals, and accompaniments and accompanists. Includes good lists of materials for vocal and instrumental organizations, theory and appreciation classes, and books for the teacher.

258. GERNET, STERLING K. *Musical Discrimination at Various Age and Grade Levels*. Philadelphia: Temple University (Sullivan Memorial Library), 1940. Pp. xvi+160.

A report of an experiment undertaken (1) to discover the degree of musical discrimination displayed by students of various instructional levels, (2) to ascertain the influence of age and prior training in the making of such selective judgments, and (3) to determine the part that general intelligence and musicality play in the making of qualitative musical judgments. Method, procedure, and results of the investigation are given.

259. HINDSLEY, MARK H. *School Band and Orchestra Administration*. New York: Boosey, Hawkes, Belwin, Inc., 1940. Pp. xii+108.

Treats briefly of various problems, such as selecting the pupils for instrumental instruction, organization of classes, equipment and its care, rehearsal routine, records, and public relations and activities.

260. HINDSLEY, MARK H. "Band Pageantry," *Etude*, LVIII (July, 1940), 457-58, 491-92.

Describes plans for marching formations for bands.

261. HOWERTON, GEORGE. "Music in the Social Scene," *Music Educators Journal*, XXVI (May, 1940), 15, 66-67.

A plea to make music more timely and realistic, and therefore more interesting, by linking it with other cultural and social studies and activities both in and out of school.

262. SCHOEN, MAX. *The Psychology of Music*. New York: Ronald Press Co., 1940. Pp. viii+258.

A résumé and evaluation of research studies in the psychology of music. Chapters deal with the psychology of tone, melody, and harmony; musical effects; types of musical experience; musical aptitude; tests of musicality and talent; the psychology of artistic singing; and the growth of musical powers. A good bibliography is appended.

263. *School Music Competition-Festivals Manual, 1941*. Chicago: National School Band Association, National School Orchestra Association, and National School Vocal Association (64 East Jackson Boulevard), 1940. Pp. 128.

Includes general information and directions for competition festivals with required and suggested lists of music for vocal and instrumental soloists and organizations.

264. SCHULENBURG, ROBERT. "The Care of Band Instruments," *Music Educators Journal*, XXVII (September, 1940), 29-30, 66-67; (October-November, 1940), 26-27, 69.

These two articles give practical directions for the care of instruments and their cases. Instructions for brass instruments appear in the September issue; woodwind and percussion instruments are dealt with in the October-November number.

265. TAUBMAN, H. HOWARD. *Music as a Profession*. New York: Charles Scribner's Sons, 1939. Pp. xii+320.

Gives information and advice regarding various phases of musical activity from which income may be derived. The book is interesting and useful to the music and guidance teacher and to the pupil contemplating a musical career.

266. WIER, ALBERT E. *The Piano: Its History, Makers, Players, and Music*. New York: Longmans, Green & Co., 1940. Pp. viii+468.

One section treats piano-teaching, both with individuals and with groups. Methods of famous teachers are described.

#### ART<sup>1</sup>

W. G. WHITFORD

University of Chicago

267. *Art Education Today, 1940*. Sponsored by Members of the Fine Arts Staff, Teachers College, Columbia University. New York: Teachers College, Columbia University, 1940. Pp. 86.

This Art Appreciation Number includes discussion of topics having special application to the high school, such as "Appreciation," "The Three-Dimensional Arts," "The Analytic Approach to Art," "The Museum of Art in Education," "The School Exhibit in Terms of Educational Value," "Modern Flower Arrangement," and "A Field Trip in Art Appreciation."

268. CHESKIN, LOUIS. *Living with Art*. Chicago: A. Kroch & Son, 1940. Pp. xiv+234.

An interpretation of art in its aesthetic, social, individual, and technical aspects. The author aims essentially to co-ordinate art with everyday life.

<sup>1</sup> See also Item 660 (Perry) in the list of selected references appearing in the November, 1940, number of the *Elementary School Journal*. Item 448 (*Implications of Research for the Classroom Teacher*) in the September, 1939, number contains a chapter by Norman C. Meier which undertakes to answer questions regarding the objectives and methods of instruction in art.

269. CURTIS, EDMUND DEFOREST. *Pottery: Its Craftsmanship and Its Appreciation*. New York: Harper & Bros., 1940. Pp. x+100.

A book for the serious craftsman and student by an author who has been engaged for many years in developing and perfecting efficient methods of pottery production. Treats the following major subjects, with ample discussion of essential details: "Clays and Their Preparation," "Forming," "Drying and Firing," "Glazes," "Design," "Laboratory Techniques," and "The Contemporary Scene in Ceramic Art."

270. DOUGHERTY, JOHN WOLFE. *Pottery Made Easy*. Milwaukee, Wisconsin: Bruce Publishing Co., 1939. Pp. viii+180.

This book is the result of fifteen years of work and experimentation with instructional material in ceramics in the industrial-arts department of the Oakwood (Ohio) High School. It provides detailed descriptions for every type of pottery work appropriate for classroom or studio-workshop production.

271. DUNCAN, WALTER JACK. *First Aid to Pictorial Composition*. New York: Harper & Bros., 1939. Pp. x+122.

A practical handbook for artists and students, which deals with techniques of composition. More than a hundred illustrations of famous paintings, mostly redrawn in pen-line or halftone effects, are used to demonstrate the author's suggestions about composition. Of value to teachers in all grades for developing concepts of pictorial organization.

272. GABA, LESTER. *Soap Carving*. New York: Studio Publications, Inc., 1940. Pp. 78.

Discusses in great detail all phases of the modern craft of soap-carving. Contains thirty-three plates.

273. LEVEY, HARRY B. "A Theory concerning Free Creation in the Inventive Arts," *Psychiatry*, III (May, 1940), 229-93.

Contains discussion of the following topics: "Philosophical and Other Speculative Explanations of Art Creation," "Theories of Art Creation as Transformed Sexual Instinct Energy," "The Theory of Artistic Sublimation Advanced by Continental Psychoanalysts," "The Defense Theory of Art Creation as Advanced by British Psychoanalysts," "Other Concepts of Art Creation as a Reaction to Anxiety," and "Description of the Free Artist as a Character Type and in Terms of His Unconscious Mental Processes."

274. MEIER, NORMAN CHARLES. *The Meier Art Tests: I. Art Judgment*. Iowa City, Iowa: Bureau of Educational Research and Service, University of Iowa, 1940. Pp. 100.

This test supersedes the Meier-Seashore Art Judgment Test published in 1929. Ten years of experimental use of the test has resulted in the selection of 100 items, from the original 125, which have superior diagnostic value. The revised test has a different order of presentation, and the time of administration has been shortened.

275. PYLE, CLIFFORD. *Leathercraft as a Hobby*. New York: Harper & Bros., 1940. Pp. viii+116.

A complete manual of methods for working in leather. Of value as a textbook for the guidance of students or as a reference book for leather craftsmen who want occupational information on matters regarding cutting, skiving, tooling, embossing, stamping, and similar problems.

276. SNIVELY, R. D., and M. E. *Metal Work*. Brattleboro, Vermont: Stephen Daye Press, 1940. Pp. 78.

One of the "Old Deerfield Series of Handicraft Manuals." Presents the techniques and methods of Mrs. Sara Rossiter in etched and hammered metal objects made at Deerfield, Massachusetts. A new type of instruction manual based largely on photographs.

277. SNIVELY, R. D., and M. E. *Pottery*. Brattleboro, Vermont: Stephen Daye Press, 1940. Pp. 86.

A new type of instruction book, one of the "Old Deerfield Series of Handicraft Manuals," in which the descriptive text is supplemented by forty-two pages of excellent photographs showing significant steps in the operation of the potter's wheel.

278. TEAGUE, WALTER DORWIN. *Design This Day* (The Technique of Order in the Machine Age). New York: Harcourt, Brace & Co., 1940. Pp. xviii+292.

Deals with the role of art in modern industrial production. Discusses the following topics: "Sources of Form," "Fitness to Function," "Fitness to Materials," "Fitness to Techniques," "Unity," "Simplicity," rhythm, dominance, balance, and many other aspects of design.

279. THORNE, DIANA. *Drawing Dogs*. New York: Studio Publications, Inc., 1940. Pp. 64.

Companion volume to *Drawing A Cat* by Newberry (Item 657 in the November, 1940, number of the *Elementary School Journal*). Miss Thorne, one of the best present-day authorities on the technique of drawing and painting dogs, tells exactly how she works.

280. VARNUM, WILLIAM H. *Selective Art Aptitude Test*. Scranton, Pennsylvania: International Textbook Co., 1940.

A series of art tests for students in junior and senior high schools, colleges, and universities and for men and women in industries and professions. The tests are divided into seven subtests, measuring, respectively: (1) Acuity of Vision (form observation); (2) Color Memory; (3) Tone Gradation; (4) Proportioning; (5) Balance and Rhythm; (6) Speed (motor reactions under creative stimulus); and (7) Creative Imagination.

281. *The Visual Arts in General Education*. A Report of the Committee on the Function of Art in General Education for the Commission on Secondary School Curriculum of the Progressive Education Association. New York: D. Appleton-Century Co. Inc., 1940. Pp. x+166.

Points the way to socially beneficial art instruction by treating art as something to be enjoyed by the many rather than as a specialty to be practiced only by a few. Makes a distinctive contribution to the literature of the field.

HEALTH AND PHYSICAL EDUCATION<sup>1</sup>

D. K. BRACE

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282. AARON, HAROLD. *Good Health and Bad Medicine*. New York: Robert M. McBride & Co., 1940. Pp. viii+328.  
A Consumers' Union publication emphasizing common-sense treatment and medicines to be avoided.
283. BLANCHARD, V. S. "Mental Hygiene on the Job," *Journal of Health and Physical Education*, XI (February, 1940), 72-73, 118-20.  
A director of health and physical education views the possibilities in physical education for mental hygiene.
284. BURKE, JOHN. "A Brief for Individual Needs," *Journal of Health and Physical Education*, XI (May, 1940), 291.  
A summary of a good school program for the individual corrective needs of pupils.
285. BUTLER, GEORGE D. *Introduction to Community Recreation*. Prepared for the National Recreation Association. New York: McGraw-Hill Book Co., Inc., 1940. Pp. xiv+548.  
A comprehensive discussion of all aspects of community recreation.
286. COLLINS, LAURENTINE B., CASSIDY, ROSALIND F., and OTHERS. *Physical Education in the Secondary School*. New York: Progressive Education Association, 1940. Pp. vi+120.  
A statement of philosophy and purposes of curriculum revision in physical education prepared by participants in summer workshops of the Progressive Education Association.
287. CREE, MARGARET A. "The Relation of the School Nurse and the Home Economics Teacher," *Journal of Health and Physical Education*, XI (April, 1940), 216-18, 273-74.  
Practical suggestions for co-operation between the school nurse and the teacher of home economics in aspects of health education.
288. *Driver Education and Training Manual for High School Teachers*. Washington: American Automobile Association, 1940. Pp. viii+136.  
Includes classroom and behind-the-wheel instruction units. May be obtained from local clubs of the American Automobile Association.
289. FENTON, NORMAN. "Mental Hygiene in Theory and Practice," *Journal of Health and Physical Education*, XI (January, 1940), 3-5, 60-62.  
A good summary of child-guidance practices from the standpoint of mental hygiene.

<sup>1</sup> See also Item 463 in the list of selected references appearing in the September, 1940, number and Items 681 (Dobbs) and 704 in the November, 1940, number of the *Elementary School Journal*.

290. GRIFFIN, J. D. M., LAYCOCK, S. R., and LINE, WILLIAM. *Mental Hygiene*. New York: American Book Co., 1940. Pp. xii+292.  
Bearing the subtitle "A Manual for Teachers," this book discusses mental hygiene as it relates to education and the effects of home and out-of-school influences on school behavior.
291. HAYES, WILLIAM E. "Posture in Education," *Journal of Health and Physical Education*, XI (January, 1940), 16-17.  
Suggests ways in which the teacher can stimulate improvement in the posture of pupils.
292. IRWIN, LESLIE W. "The Role of Health and Physical Education in National Defense," *Journal of Health and Physical Education*, XI (September, 1940), 406-7, 452-53.  
Includes practical suggestions for school procedures in reshaping physical- and health-education programs to fulfil more adequately their functions in national preparedness.
293. JOHNSON, IONE. *School Productions*. Minneapolis, Minnesota: Burgess Publishing Co., 1940. Pp. ii+58.  
A handbook giving procedures and techniques involved in school productions.
294. LINDHARD, JOHANNES. "Physical Exercises for Women," *Journal of Health and Physical Education*, XI (May, 1940), 295-97, 326.  
A Danish physician gives a thoughtful discussion of exercise for women.
295. LINDLAHR, VICTOR H. *Eat—and Reducel*. New York: Prentice-Hall, Inc., 1939. Pp. x+194.  
A popular presentation of desirability of placing emphasis on the substitution of fruits and other protective foods for starches and sugars.
296. OBERTEUFFER, D., and BECHTEL, P. C. *Health Activities and Problems*. Boston: Houghton Mifflin Co., 1940. Pp. xii+148.  
An experience workbook for secondary-school pupils in which problems in personal and public health are organized in unit form.
297. PARRAN, THOMAS. "Sex Education—A Challenge," *Journal of the National Education Association*, XXIX (January, 1940), 16-17.  
A plea for the co-operation of all teachers in meeting the problems of sex education.
298. REYNOLDS, H. ATTWOOD. *Low-cost Crafts for Everyone*. New York: Greenberg Publisher, Inc., 1939. Pp. xii+322.  
Of special value to persons interested in simple arts and crafts for clubs, camps, schools, and recreation centers.
299. RICHARDS, E. BRADLEY. "The English Teacher's Contribution to Health Education in the High School," *Journal of Health and Physical Education*, XI (April, 1940), 211, 275-77  
A teacher of English views the contribution of that subject to health education.



300. SCHEINFELD, AMRAM. *You and Heredity*. New York: Frederick A. Stokes Co., 1939. Pp. xviii+434.  
The facts of heredity and eugenics presented from the layman's viewpoint.
301. STACK, HERBERT J. "Correlating School Safety," *Journal of Health and Physical Education*, XI (November, 1940), 536-39, 583.  
Outlines committee work in correlating the various aspects of school-safety procedures to form a comprehensive safety program.
302. STRACHAN, LOUISE. "Appraising School Health Education," *Journal of Health and Physical Education*, XI (January, 1940), 11, 58-59.  
Presents the viewpoint of an outsider in evaluation of a school health program.
303. STUDEBAKER, JOHN W. "Education for Physical Fitness," *School Life*, XXVI (November, 1940), 33.  
A statement from the United States Commissioner of Education in which he indorses a plan for promoting national preparedness through health education, physical education, and recreation.
304. TUNIS, JOHN R. *Sports for the Fun of It*. New York: A. S. Barnes & Co., 1940. Pp. x+340.  
Some aspects of the history, equipment, play, and rules of twenty sports are presented in readable style, with interesting illustrations.
305. WESTMANN, S. K. *Sport, Physical Training and Womanhood*. Baltimore: Williams & Wilkins Co., 1939. Pp. xvi+222.  
A conservative viewpoint of the participation of women in England's national fitness program.

# Educational Writings

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## REVIEWS AND BOOK NOTES

THE REPORT OF THE MATHEMATICS COMMISSION.—The final report of the Joint Commission of the Mathematical Association of America and the National Council of Teachers of Mathematics<sup>1</sup> does not differ greatly from the preliminary lithoprinted edition that appeared in 1938. The authors continue to find it difficult to relate instruction in mathematics to the whole program of high-school education. Despite an excellent initial statement of the purposes of secondary education, the subsequent argument gives little consideration to the relative effectiveness of certain types of subject matter so far as the attainment of these purposes is concerned. The actual problem of curricular reorganization is most baffling, because all high-school children are now spending their time in school doing something. For more of them to study mathematics for longer periods means that they must spend less time studying something else. The issue is rarely one of mathematics versus nothing but, rather, mathematics versus English or science or foreign language or industrial arts or physical education. This being so, the high-school principal or faculty, or whoever is ultimately responsible for such decisions, must have at hand data that will make possible an intelligent decision concerning the relative amounts of attention to be given the various subjects, the perpetuation of the "subject-matter" curriculum being assumed.

This yearbook of the National Council of Teachers of Mathematics contains little evidence that allows the nonmathematical reader to judge for himself what justification there is for the practices recommended. If Huxley did say, as the Preliminary Report quotes him as saying, that mathematics knows nothing of induction, observation, or experimentation, he would probably not have changed his views after reading *The Place of Mathematics in Secondary Education*. The report is certainly "not burdened with extensive references" to the research literature. "Views expressed are those held by members of this Commission, based on their own experience, their reading and study, and their discussions with other persons" (pp. x-xi). The reader has no recourse but to accept or to reject the authorities. He is given few opportunities to exercise his critical judgment.

<sup>1</sup> *The Place of Mathematics in Secondary Education*. The Final Report of the Joint Commission of the Mathematical Association of America and the National Council of Teachers of Mathematics. Fifteenth Yearbook of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1940. Pp. xvi+254. \$1.25.

The members of the Commission have little patience with what they conceive to be "incidental" learning: "[mathematical] instruction should be in definitely organized mathematics courses, for incidental learning of mathematical fragments in connection with other studies cannot give either the general understanding or the appreciation of the subject that is here advocated" (p. 37). The commissioners are no less skeptical of any doctrine of "postponement," which, no matter how "alluring to the shortsighted person, and however valid in certain subjects, is indefensible in the case of mathematics. The subject is so extensive and so difficult, requiring systematic and protracted study, as to be unsuitable for the general application of either of these doctrines" (p. 44).

The Commission's point of view is admittedly subject matter centered. The distinctions between various fields of subject matter are considered "to a large extent inevitable, being a consequence of the growth of civilization and a result of the progress that has been made in the arts, the sciences, and technology" (p. 189). The fact that this comment is made in connection with the academic training of the teachers of mathematics does in no sense mean that for the years preceding college the Commission recommends a program involving much more than the teaching of subject matter.

Most readers will consider the recommended curriculum plan to be the heart of the book. The Commission makes no attempt to describe learning experiences for the first six grades but, building on an assumed foundation of skills and understandings to be acquired in the elementary-school grades, proceeds to use the following guiding principles for the selection of materials of instruction at the secondary-school level:

(1) . . . . The curriculum should include the basic elements of arithmetic, algebra, geometry, graphic representation, and trigonometry.

(2) . . . . For every type of pupil, a mathematical course of study must give constant attention to the "foundations," while at the same time it stresses significant applications within the learner's potential range of understanding and interest.

(3) . . . . the fundamental concepts, principles, and skills of mathematics must be introduced and developed in a carefully organized pattern. Due attention must be given at all times not only to logical considerations, but also to psychological and pedagogical principles.

(4) Extensive experience has led to the conviction that in the case of retarded pupils, modifications are needed in the rate of progress and the degree of comprehension, rather than in the choice of the basic mathematical units.

(5) The precise scope and degree of emphasis to be given to each major type of work, in a particular school, cannot be stated with finality in any general discussion. On the contrary, these items must be regarded as subject to further local experimentation, in the light of actual time schedules and of desired or possible types of application and of training.

(6) Psychological considerations such as those having to do with the problem of understanding, with motivation, rates of learning, and with degrees of mastery, are also of great significance in connection with the construction of modern curriculums. . . .

(7) Mathematics is often described as a "hard" subject. While [this feature] of mathematics cannot be denied, it is also true that each forward step in the subject is, as a rule, a very simple one. Hence, by safeguarding each day's progress, and by following a teaching practice based on the laws of learning, the teacher can eliminate, to a large extent, the painful and futile struggle that is only too evident in some mathematics classrooms [pp. 55-56].

This process led to the "Essentials of a General Program in Secondary Mathematics," including statements of abilities and outcomes in the following seven fields: (1) number and computation, (2) geometric form and space perception, (3) graphic representation, (4) elementary analysis, (5) logical thinking, (6) relational thinking, and (7) symbolic representation and thinking.

The grade-placement chart appears as Appendix V. It describes a mathematics program for Grades VII through XII, which "is intended for pupils of normal ability who have had good training. It is not . . . implied that all the work will be covered by all pupils" (p. 77), although "the Commission believes that mathematics should be required through the ninth school year, and beyond the ninth year in the case of competent students" (p. 74). Reference to "pupils of normal ability" or "competent students" or pupils "who have had good training" does not provide a particularly objective basis for guidance. There is almost no evidence advanced in justification of the grade allocation of the instructional units.

Appendix II is devoted to a reinterpretation of the data on transfer of training—a problem which is rarely understood and is almost invariably approached with resentment by the professional mathematician. The Commission states here its view that most of the so-called "experimental study" of transfer was in no sense scientific and should never have been so interpreted. Throughout the report there is little evidence that the authors have any functional understanding of the weakness of the mental-discipline concept. While formal recognition is given to the limitations of any assumption of complete transfer, this assumption is implicit in much of the argument.

It would be interesting to try a new type of report, very much like the present one but written by persons who have not specialized in mathematics. After all, nonmathematicians are in the majority, and the place of mathematics in the secondary school may not be a question which the professional mathematician is in the best position to answer. He is always disposed to understand the question to be: What is the place of mathematics in the secondary education of mathematicians? An analogous comment might be made regarding the attempts of teachers of English, foreign languages, the social studies, and science to determine the consideration that should be given their subjects in a program of general education.

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A SOCIAL APPROACH TO CURRENT PROBLEMS IN SECONDARY EDUCATION.—Because of the appearance during the past year or two of a number of books with titles which suggest, either directly or by implication, that all is not well with secondary education, another book of the same general tenor<sup>1</sup> naturally excites curiosity and impels one to read. One recalls, for example, *Reorganizing Secondary Education* (prepared by V. T. Thayer, Caroline B. Zachry, and Ruth Kotinsky for the Commission on Secondary School Curriculum. New York: D. Appleton-Century Co., Inc., 1939); *That All May Learn* by B. L. Dodds (Bulletin of the National Association of Secondary-School Principals, Vol. XXIII, No. 85. Washington: National Association of Secondary-School Principals of the National Education Association, 1939); William L. Wrinkle's *The New High School in the Making* (New York: American Book Co., 1938); Francis T. Spaulding's *High School and Life* (The Regents' Inquiry into the Character and Cost of Public Education in the State of New York. New York: McGraw-Hill Book Co., Inc., 1939); and, more recently, *What the High Schools Ought To Teach* (The Report of a Special Committee on the Secondary School Curriculum. Prepared for the American Youth Commission and Other Co-operating Organizations. Washington: American Council on Education, 1940). All these books emphasize, in one way or another, the urgency of reorganizing our program for the education of American youth, and they are continuing evidence of the seriousness of the problem and of the energy and sincerity with which educators are attacking it. The publication of another volume accentuates the importance of continuing to seek a solution.

Wiley's book is a clear and comprehensive discussion of the redirection of secondary education, written from a social approach. The author believes that in a democratic society such as ours the dual purpose of any sound program combines education for social and civic responsibility with education for self-realization; that the "ideal of democracy is that the individual and society may find fulfillment in each other" (p. 21). He believes, furthermore, that, since life and living are inextricably interwoven with education, teachers and administrators who would build a sound and effective program for American youth must not only be aware of the mutual interdependence of school and community but must also possess a sound philosophy of what constitutes a wholesome and desirable community life.

With this point of view succinctly stated, then, Wiley presents in clear, readable fashion the problems which the American secondary school of the post-war period has faced and will face in the future, and he suggests solutions that have been attempted or are in process. The economic and social conditions which have brought about changes in the character and the size of the secondary-school population are reviewed briefly, and their social significance is pointed out. Changes which a social approach to the problems of education has already

<sup>1</sup> George M. Wiley, Jr., *The Redirection of Secondary Education: A Social Interpretation*. New York: Macmillan Co., 1940. Pp. viii+494. \$2.50.

made, or should make, in the program of studies are discussed rather fully in two chapters entitled, respectively, "The Curriculum and the Adolescent" and "Subject Materials and Environment: Their Relationship and Interdependence." Type programs of studies showing some of the more recent innovations are presented. To the reviewer these two chapters and one concerned with health education were the most helpful in the book.

The internal administrative arrangements of the school—grouping of pupils, size of classes, teaching load, provision for extra-curriculum life, assemblies, library facilities, and so on—are ably discussed, and their functions are interpreted in terms of a social approach.

The book is one that should be of interest and value to both teachers and administrators because the problems presented are crucial for both.

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THE GUIDANCE FUNCTION OF THE SCHOOL.—As part of a continuing program for encouraging revision of the school's offering, the Progressive Education Association has sponsored a study of adolescence under its Commission on Secondary School Curriculum. After five years of inquiry, a final and comprehensive report<sup>1</sup> surveys the place that aid to the adolescent as a person may play in a rounded education. As would be expected, the basic theme is the interaction of all phases of the pupil's experience as they affect his development, and there is emphasis on the necessity for expanded responsibility on the part of the school. The volume is in no sense a radical departure from previous writings published under the auspices of the Progressive Education Association, and it is a logical extension into educational philosophy of more scientific approaches, such as the publications of Howard M. Bell, *Youth Tell Their Story* (Washington: American Council on Education, 1938), and Daniel A. Prescott, *Emotion and the Educative Process* (Washington: American Council on Education, 1938).

The authors of the book under review, generalizing from recent studies of the needs of youth, seek to describe the adolescent's relation to his social surroundings and his need for adult guidance. In particular, three topics serve as a framework: (1) changing attitudes toward the self, (2) changing personal relationships, and (3) changing attitudes toward basic social institutions. The actual structure is far from rigid, as consideration of the first two topics pervades the entire book. The needs of the adolescent for a realization of self-importance, for affection from his parents, for knowledge of the social code of his group, and for practice in heterosexual attitudes are described and illustrated. The illustra-

<sup>1</sup> Caroline B. Zachry, in collaboration with Margaret Lighty, *Emotion and Conduct in Adolescence*. For the Commission on Secondary School Curriculum. Progressive Education Association Publications. New York: D. Appleton-Century Co., Inc., 1940. Pp. xvi+564. \$3.00.

tions are drawn from case histories and anecdotal records prepared by counselors and classroom teachers working within the study.

The adolescent is pictured as a person in great need of a smooth adjustment as he discards childhood standards and reaches for an understanding of adult viewpoints. This change is an outgrowth of physical maturation, increased heterosexual activity in the group, rebellion against domination which interferes with independence, and contact with new responsibilities for social decisions and vocational preparation. The function of attitudes of parents, teachers, and contemporaries in this transition is indicated. Each source of conflict is presented as a resultant of in-school and out-of-school forces which thwart various needs of the pupil. The sharply relevant case studies used as illustrations make the problems clearly concrete. Many teachers will wish, however, that the authors had more frequently indicated how the progressive school attempted to help the pupil; far too many of the cases are used merely to dramatize the importance of conflicts and are reported only through the diagnostic stage. In the instances where treatment is mentioned, one may suspect the *post hoc* fallacy. This difficulty is, of course, inherent in the nonscientific style chosen.

To criticize the book for being limited is to minimize its very real contribution to educational thinking. One might wish, however, for greater emphasis on the way in which the school can progress toward better guidance. Thus, while it is made clear that the school will frequently find the pupil's security hindered by parental dominance or other attitudes, the authors do not discuss, with any thoroughness, the question of how far the school has the duty or the right to proceed in such a case. The implications of simpler problems for education are not completely presented: the function of literature and hygiene classrooms in guidance is brilliantly illustrated, but virtually no attention is given to the place of other subjects in aiding the pupil personally. A lack of proportion is suggested by the fact that discussion of psychosexual development occupies over three-fourths of the book. Problems of adjustment in selecting a lifework are treated well, but adjustments to part-time work and job-finding (especially pressing under present conditions) and to religion and other intellectual sources of conflict are discussed sketchily.

As an expression of an ultimate purpose for education and as a partial guide for school practice, this book should be most stimulating. While it goes farther in its aims than can be expected of most schools at present, it presents a vigorous challenge to the teacher who feels that the school serves best as it stresses subject-matter learning. The authors are particularly to be commended for a concrete and meaningful style and for emphasizing the school's responsibility to every child, including the pupil who is not in conspicuous need of guidance. A fresh viewpoint toward every pupil should come to the teacher who evaluates his practices in the light of these progressive goals.

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**FUNCTIONAL HOME-ROOM GUIDANCE PROGRAMS.**—Two problems that have perplexed teachers and principals since the inception of the junior high school are how to utilize effectively the time set apart for the home-room period and what to teach during this period in order that the fundamentals of guidance may be given pupils. A recent and much needed publication<sup>1</sup> which has contributed to the solution of these problems not only suggests many specific plans and procedures for conducting home-room programs but also contains rather comprehensive treatment of the various aspects of guidance.

The book, written in somewhat detailed outline form, is a masterpiece of organization. There are six major parts corresponding to the six semesters of junior high school. Each part, prefaced by several explanatory paragraphs on methods of procedure, covers one phase of guidance. Part I deals with the orientation of pupils in Grade VII B; Part II is devoted to the social, moral, and ethical guidance of classes in Grade VII A; while Part III sets forth the recreational and cultural guidance given to pupils in Grade VIII B. General educational guidance for pupils in Grade VIII A is introduced in Part IV, and the vocational guidance planned for classes in Grade IX B is outlined in Part V. Additional educational guidance for members of classes in Grade IX A is presented in Part VI.

The material in each part is divided into fourteen combination home-room programs and guidance lessons. The final program in each part is designed to summarize the work of the semester. Each program outline consists of a list of one to four objectives and of suggested activities through which these objectives are to be realized. A brief note to the teacher given at the end of each lesson contains instructions for any necessary advance preparation and assignments for the next home-room meeting. A bibliography, containing page and chapter references to supplementary materials to be used by both teacher and pupils, is also given at the end of most of the programs.

Organization of contents of the book is based on the assumption that in most junior high schools the home-room class meets for one hour each week, at which time guidance problems of the group are studied. By virtue of the comprehensiveness of the materials and the activities presented, teachers in schools where home-room groups meet for shorter periods several times each week may make selections and adaptations to fit their particular time allotments. The authors suggest the use of "work scrapbooks" by pupils to sustain interest in each series of lessons.

Spatial emphasis has been given the programs on vocational guidance for classes in Grade IX B. In the opinion of the reviewer, this is as it should be. A valuable list of sources of free or inexpensive guidance materials is also presented in connection with these lessons.

The book, an attractive volume, is adequately indexed. There are a table of

<sup>1</sup> Mary E. Ford Detjen and Ervin W. Detjen, *Home Room Guidance Programs for the Junior High School Years*. Boston: Houghton Mifflin Co., 1940. Pp. xvi+510. \$1.90.

contents covering four pages and an index of nine pages. The programs are set off by headings of a distinctive style, made up of ruled lines and capitalized letters. The clear type and well-arranged pages make the text easily read. There are many pertinent charts, forms, graphs, tables, and tests. Excellent quotations for blackboard use are given in several of the lessons. Two minor errors were found: one in the numbering of objectives and the other a misspelling of the word "pantomime."

This volume should prove to be extremely valuable to home-room teachers, guidance counselors, and principals in junior high schools. Without question it is a meritorious contribution to the literature on home-room guidance.

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**CURRENT TRENDS IN TEACHER TRAINING.**—The secondary school is an institution built mainly on tradition. In the past the staff has been largely drawn from graduates of liberal-arts colleges who have received varied training. On the whole their professional training has not been to the advantage of the secondary school. The professional requirements set up by the accrediting agencies have been meager and of little value. If a teacher so desired, he could enter the secondary school with little or no training in the profession of education.

The teachers' colleges and schools of education, aware of this fact, have set about studying the needs of the secondary-school teacher, and, as a result, some progress has been made in training teachers for a changing social order. A careful investigation has been made of the training programs over the ten-year period of 1928-38.<sup>1</sup> This analysis of teachers' college catalogues points out many weaknesses of the professional training program.

The first attempt of the author is to get at the nature of the background courses which have been required of secondary-school teachers. During the decade studied, improvement has been brought about in this particular field, the trend of which is indicated by the following quotation: "The study of prescribed courses for background purposes tends to show that there is a movement away from traditional academic subject-matter requirements and toward functional courses related to present-day human experiences. Such changes in practice seem to be in response to the professional needs of prospective teachers" (p. 54).

Professional courses in the past have not always been of value to the teacher. This study shows clearly that much thinking and some research have been done during the past few years, with the result that professional courses tend to meet more definite professional objectives. The number of hours required has not

<sup>1</sup> H. A. Sprague, *A Decade of Progress in the Preparation of Secondary School Teachers: A Study of Curriculum Requirements in 55 State Teachers Colleges in 1928 and 1938*. Teachers College Contributions to Education, No. 794. New York: Teachers College, Columbia University, 1940. Pp. viii+170. \$1.85.

been materially increased, but the quality of the offering has improved. As the professional objectives have assumed discernible patterns, the fields of specialization have become more clearly defined. The narrow fields of specialization of former years have disappeared, and more comprehensive needs have been substituted.

In general this volume shows that over a period of years the professional training of secondary-school teachers has been qualitatively and quantitatively changed; secondary-school teachers of today have a broader point of view and are more professionally trained than were those of earlier decades.

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## CURRENT PUBLICATIONS RECEIVED

### GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

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